

Eric J. Krathwohl, Esq.
Direct: (617) 556-3857
Email: ekrathwohl@richmaylaw.com

December 12, 2005

VIA E-FILING & HAND DELIVERY

Mary L. Cottrell, Secretary
Department of Telecommunications and Energy
One South Station
Boston, MA 02110

Re: D.T.E. 05-61; Milford Water Company

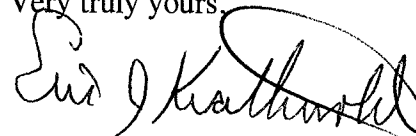
Dear Ms. Cottrell:

Enclosed for filing please find Milford Water Company's responses to the following First Set of Information Requests of the Department of Telecommunications and Energy Settlement Intervention Staff in the above-captioned matter: SIS1-13, SIS1-14, SIS1-24, SIS1-29 and SIS1-31.

Also enclosed, following our response to SIS1-23 filed on December 9, 2005, is a copy of the Comprehensive Compliance Evaluation from the Department of Environmental Protection dated March 9, 2005, labeled "Attachment SIS1-23."

Any questions on this matter should be directed to the undersigned.

Very truly yours,



Eric J. Krathwohl

Encl.

cc: Shaela McNulty Collins, Esq., Hearing Officer – Settlement Intervention Staff
John Geary, Esq., Hearing Officer – Adjudicatory Staff
Gerald M. Moody, Esq.
Henry C. Papuga, Manager
Stephen B. Alcott

K:\EJK\MIW\2005 Rate Case\filing letter 12-12-05.doc

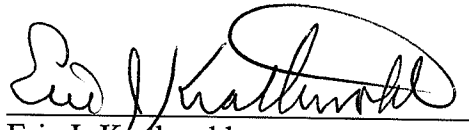
COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS
AND ENERGY

D.T.E. 05-61

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon all parties of record in this proceeding in accordance with the requirements of 220 CMR 1.05(1) (Department's Rules of Practice and Procedure).

Dated at Boston, Massachusetts this 12th day of December, 2005.


Eric J. Krathwohl
Counsel

Of Counsel for
Milford Water Company

**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY**

**MILFORD WATER COMPANY RESPONSES TO THE
FIRST SET OF STAFF INFORMATION REQUESTS OF THE SETTLEMENT INTERVENTION STAFF
DTE 05-61**

Respondent: Henry C. Papuga
Response Date: December 12, 2005

SIS 1-13 Refer the page 10 of the prefiled testimony of Mr. Papuga. Please provide, for the period January 1, 1999 through September 30, 2005, the following:

- (a) the date(s) on which emergency water was purchased;
- (b) the water system selling the water;
- (c) the amount of water purchased on that day; and
- (d) the price per unit purchased.

If the meter at the interconnection is read other than on a daily basis, provide this information based upon appropriate meter reading cycle in lieu of daily information.

Response: **The Milford Water Company purchased 'emergency' water from the Town of Holliston in 2001 and 2002. The company also purchased 'emergency' water from the Town of Medway in 2002. The Town of Holliston initially informed the company that one bill would be provided for the total water purchased. Because the purchase continued past the end of the company's fiscal year, two bills were prepared. The Town of Medway informed the company that one bill would be prepared for the total water purchased. The company routinely inspected each respective pump station during the period water was being purchased. Please see the attached Excel report providing the specific information as requested.**

ATTACHMENT SIS 1-13

Year	Town of Holliston			Town of Medway		
	Volume (cu.ft.)	Cost \$	Period	Volume (cu.ft.)	Cost \$	Period
1998	None	\$0.00	off	None	\$0.00	off
1999	None	\$0.00	off	None	\$0.00	off
2000	None	\$0.00	off	None	\$0.00	off
2001	783,230	\$38,911.78	12/5/01 - 12/31/01	None	\$0.00	off
2002	2,454,400	\$122,470.28	1/1/02 - 4/1/02	2,583,970	\$51,162.60	1/22/02 - 4/1/02
2003	None	\$0.00	off	None	\$0.00	off
2004	None	\$0.00	off	None	\$0.00	off
2005	None	\$0.00	off	None	\$0.00	off

Holliston rates (at time of purchase):

\$37.00 for 1st 3200 cu.ft

\$2.36/100 up to 8000 cu.ft

\$5.00/100 over 8000 cu.ft.

Medway rates (at time of purchase):

\$1.98/100 cu.ft.

**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY**

**MILFORD WATER COMPANY RESPONSES TO THE
FIRST SET OF STAFF INFORMATION REQUESTS OF THE SETTLEMENT INTERVENTION STAFF
DTE 05-61**

Respondent: Henry C. Papuga
Response Date: December 12, 2005

SIS 1-14 Refer the page 52 of exhibit SBA-1, WP-MISC EXP. Please state how much water Milford has purchased since mid-September of 2005. In addition, explain how Milford estimated \$50,000 in purchased water for 2005.

Response: **The Milford Water Company has not purchased any water from Holliston in 2005. Although a drought condition was declared and Holliston initially approved opening the emergency condition and selling water to Milford, the excessive rainfall in October replenished the company's reservoir making the purchase unnecessary.**

The estimate of \$50,000 for water to be purchased was based on judgment and prior experience including volumes of water purchased from Holliston and Medway in 2001 and 2002. Those purchases were as follows:

Holliston, 2001	\$38,912
Holliston, 2002	\$122,470
Medway, 2002	\$51,163

**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY**

**MILFORD WATER COMPANY RESPONSES TO THE
FIRST SET OF STAFF INFORMATION REQUESTS OF THE SETTLEMENT INTERVENTION STAFF
DTE 05-61**

Respondent: Henry C. Papuga
Response Date: December 12, 2005

SIS 1-24 Refer the page 7 of the prefiled testimony of Mr. Alcott. Please provide all correspondence between Milford and the DEP regarding the March 9, 2005 Comprehensive Compliance Evaluation.

Response: **Company president, Mr. Leonard H. White and assistant manager, Mr. Mark Dana, are the primary company contacts for items discussed within the Comprehensive Compliance Evaluation.**

The requested correspondence is attached hereto as Attachments SIS1-24A through SIS1-24R.



MILFORD WATER COMPANY

Progressive Public Service for Over 100 Years

575 1-24A

March 30, 2005

Department of Environmental Protection
Central Regional Office
627 Main Street
Worcester, MA 01608

Attention: Paul R. Anderson, Section Chief

Subject: Comprehensive Compliance Evaluation (CCE) and Notice of Noncompliance
NON-CE-05-5D023 Received March 9, 2005.

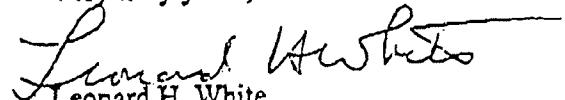
Dear Sir:

I wish to thank you for the excellent evaluation survey of the Milford Water Company operations conducted by your Mr. Edward Gates on December 4, 2004. The survey was extremely thorough, with the result that its directives and recommendations were brought before the Board of Directors at their Annual Meeting held on March 24, 2005. At that meeting, the Board authorized the recruiting of an assistant to the manager, to be brought on board as quickly as possible, with the charge that he address the violations and recommendations listed by Mr. Gates in the Compliance Plans A, B, & C of his survey report.

There is one major correction to be made in the survey report. Due to a misunderstanding, the report indicated that our Bear Hill storage tank (2.65 m.g.) was out of service. This tank has never been out of service since it was built, but its solar-powered water level reporting device is not in operation at this time. The Bear Hill and Congress Street tanks share the same overflow elevation, with Bear Hill simply floating on the system.

Again my thanks for the CCE survey, and be assured that the Milford Water Company will be taking corrective measures on your recommendations, starting at once.

Very truly yours,


Leonard H. White
President

LHW/dlr
cc: Henry Papuga, MWC Mgr.

66 Dilla Street • Milford, Massachusetts 01757-1104 • 508-473-5110 • Fax 508-478-7997

5751-24B



MILFORD WATER COMPANY

Progressive Public Service for Over 100 Years

April 12, 2005

Department of Environmental Protection
Central Regional Office
627 Main Street
Worcester, MA 01608

Attention: Paul R. Anderson, Section Chief

Subject: CCE Sanitary Survey
Table A - Violations

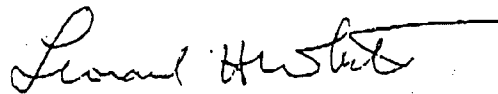
Dear Sir:

Please be advised that the continuous pH monitoring equipment mandated for our Godfrey Brook Treatment Facility by the Subject CCE (Page 44 of 47) has been ordered from:

R. E. Erickson Company
591A Providence Highway
Walpole, MA 02081

The equipment will be installed as soon as it arrives, at which time the Sanitary Survey Compliance Response Form (P.44) will be executed and forwarded to your office.

Very truly yours,


Leonard H. White
President

LHW/dlr
Encl.
cc: Henry Papuga, Mgr.

2185000 - 'ford Water Company
Sanitary Survey Stage 1 & NON-CE-05-SD023

Survey Date: December 4, 2003
Page 44 of 47

Please note that this Compliance Plan is also a Notice of Noncompliance (NON) pursuant to M.G.L. c.21A, §16 and 310 C.M.R. 5.00. Please review the item noted in the report and Compliance Plan.

Within 45 days of receipt of the NON and inspection report, you must fill-in the corrected date(s) and submit this form to the DEP and the attached SANITARY SURVEY COMPLIANCE PLAN RESPONSE FORM, including all applicable attachments. If the time required to complete the correction is greater than 3 months, submit quarterly progress reports and provide an anticipated completion date.

#	Type T=Technical, F=Financial, M=Managerial	Regulation or Statute Citation	Sanitary Survey Compliance Plan Corrective Action	Deadline for Submitting Corrective Action
1.	T	310 CMR 22.04(7) & Chapter 2 of the Guidelines	The Godfrey Brook Treatment Facility lacked continuous pH monitoring. Continuous pH monitoring equipment must be installed at the Godfrey Brook Treatment Facility. The monitoring equipment must be equipped with both high and low pH alarms and shutoff points. It is suggested that the pH monitoring equipment be connected to the SCADA system.	15-Apr-2005

T=Technical, F=Financial, M=Managerial
MA Drinking Water Regulations 310 CMR 22.00

5751-24B2

The DEP will provide technical assistance to systems responding to corrective actions and recommendations to improve the protection of drinking water and public health. Please call your regional DEP office at 508.792.7650 for referral to the appropriate staff person or technical outreach provider.

5151-24C



MILFORD WATER COMPANY

Progressive Public Service for Over 100 Years

May 9, 2005

Department of Environmental Protection
Central Regional Office
627 Main Street
Worcester, MA 01608

Attention: Paul R. Anderson, Section Chief

Subject: Comprehensive Compliance Evaluation (CCE) and Notice of Noncompliance

Dear Sir:

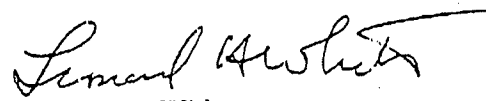
As we advised you in our letter of March 30, 2005, the Milford Water Co's. Board of Directors authorized the hiring of an Assistant to the Manager of the Company.

We are pleased to announce that Mark Dana, recently retired Manager of Aquarion's Millbury and Oxford Water Companies, has joined the Milford Water Company as Assistant to the Manager, and commenced work today, May 9, 2005.

His first assignment is to address the violations and recommendations listed by your Mr. Gates in the CCE Compliance Plans A, B, & C of his survey report.

We hope that this action of the MWC Board of Directors will indicate to the Department of Environmental Protection that MWC is committed to seeing that their Company complies with all DEP current and future regulations in a timely manner.

Very truly yours,


Leonard H. White
President

LHW/dlr
cc: Henry Papuga, MWC Mgr.

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5751-247

MILFORD WATER COMPANY

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www.milfordwater.com • 508-473-5110 • fax 508-478-7997

May 26, 2005

Mr. Paul Anderson
Department of Environmental Protection
Central Regional Office
627 Main Street
Worcester, Ma. 01608

RE: PWS 2185000
PWS Milford
PWS Name Milford Water Company
Comprehensive Compliance Evaluation (CCE)
& Notice of Noncompliance
NON-CE-05-5D023

Dear Mr. Anderson

Attached please find a completed copy of the Sanitary Survey Compliance Plan table "B" Deficiencies and corrective action dates. Also attached is a copy of the Public Water System Staffing Plan, Handbook for Water Supply Emergencies, and a signed and dated Sanitary Survey Compliance Plan Response Form for Table A & B, a list of items that have been addressed or are under current review. I will be informing you when other corrective actions have been completed.

Very Truly Yours



Mark W. Dana
Assistant Manager

Cc: Mr. Ed Gates

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SIS 1-24E

**MILFORD WATER COMPANY**

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June 14, 2005

Mr. Paul Anderson
Department of Environmental Protection
Central Region Office
627 Main Street
Worcester, Ma. 01608

Re: PWS 2185000
PWS Milford
PWS Name Milford Water Company
Comprehensive Compliance Evaluation (CCE)
& Notice of Noncompliance
NON-CE-05-5D023

Dear Mr. Anderson

Attached please find copies for water analysis for MPA tests that were required as a result of the CCE report dated March 9, 2005. These results are for our sources at Clark's Island wells 2185000-02G and The Dilla Street wells 2185000-01G. These sources will be sampled again in the fall as required. If there are any questions do not hesitate to call me at (508) 473-5110.

Very truly Yours

Mark W. Dana
Assistant Manager

Cc: Mr. Edward Gates
Attachments
FILE ✓

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SIS-24F

MILFORD WATER COMPANY

66 Dilla Street • Milford, Massachusetts 01757-1104
www.milfordwater.com • 508-473-5110 • fax 508-478-7997

September 30, 2005

Catherine Hamilton
DEP
Bureau of Resource Protection
6th Floor
One Winter Street
Boston, MA. 02108

Re: Best Effort Requirement, Milford Water Company
PWS 2185000

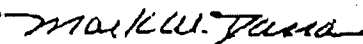
Dear Ms: Hamilton

Enclosed please find copies of the letters that were sent to the town of Milford Board of Health and Planning Board requesting that they amend the current Water Resource Protection District Bylaw. Also please find a copy of a letter that was sent to the Hopedale Water & Sewer Department requesting the Town of Hopedale to incorporate the approved Zone II of the Milford Water Company into there water supply protection bylaws or health regulations.

Lastly I have reviewed Milford's *Water Resource Protection District Map* and have determined that the protection district boundaries cover the Milford Water Company's Zone II. We will be having copies of the protection district map made in the near future and I will forward a copy to you for your files.

If you have any Questions concerning this matter, please contact me at 508-473-5110.

Very truly yours,



Mark W. Dana
Assistant Manager
Milford Water Company

Cc: CCE file

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5751-246

**MILFORD WATER COMPANY**

66 Dilla Street • Milford, Massachusetts 01757-1104
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September 7, 2005

Hopedale Water & Sewer Department
78 Hopedale Street
P.O. Box 7
Hopedale, Ma. 01747

Attn: Aldo Tarca, Chairman

Re: Best Effort Requirement 310 CMR 22.21

Dear Chairman Tarca:

Under the Best Effort Requirements 310 CMR 22.21 (1), non-municipal public water suppliers must demonstrate to the Department of Environmental Protection that they have used their best efforts to encourage municipalities to protect the Zone II recharge area with municipal protection controls (bylaws, health regulations).

The DEP approved Zone II recharge area for the Milford Water Company's Godfrey Brook wells 1,2 & 4 extend into your municipal boundaries. In an effort to ensure the continued quality of this well field public drinking water source, we request that you incorporate the approved Zone II area into your water supply protection bylaws or health regulations.

To effectively prevent potential sources of contamination from reaching drinking water wells, the DEP encourages communities to adopt local protection controls that meet the requirements of the Wellhead Protection Regulation 310 CMR 22.21 (2)(a)(1) through 22.21(2)(b)(7).

For your convenience, I am providing you with a copy of the Zone II map and the DEP Wellhead Protection Regulations. We appreciate your consideration into this matter.

If you have any questions concerning this matter, please contact me at
508-473-5110.

Very truly yours

Henry C. Papuga
Henry C. Papuga, Manager
Milford Water Company

cc: Catherine Hamilton DEP/DWP, Boston
Paul Anderson DEP Central Region, Worcester
CCE file
Attach.

Progressive Public Service for Over 100 Years

**TOWN OF HOPEDALE**

78 Hopedale Street - P.O. Box 7
Hopedale, Massachusetts 01747

Tel: 508-634-2203 ex 12 Fax: 508-634-2200

SIS-24H

**Water & Sewer
Commissioners**

Aldo P Tarca Chm.
James Morin
Robert Bird

October 3, 2005

Milford Water Company
66 Dilla St.
Milford, Ma. 01757

Attn: Henry Papuga


Re: Zone II

Dear Henry:

I am in receipt of your request to incorporate our Zone II bylaws and health regulations in those areas of Hopedale which are part of your water protection district. Please be advised that I have forwarded a copy of this request to our Board of Health asking them to comply with your request and will also place an article on the town meeting floor next spring to include this area within the Water Departments wellhead protection bylaws.

If there is anything else I can provide, please feel free to contact me at 508-634-2203 Ext. 17.

Sincerely


Tim Watson, Manager
Water & Sewer Departments

Cc: Water and Sewer Commission
Lenny Izzo, Board of Health
Planning Board

**TOWN OF HOPEDALE**

78 Hopedale Street - P.O. Box 7
Hopedale, Massachusetts 01747

Tel: 508-634-2203 ex 12 Fax: 508-634-2200

5751-241

**Water & Sewer
Commissioners**

**Aldo P Tarca Chm.
James Morin
Robert Bird**

October 3, 2005

To: Hopedale Board of Health

Fr: Tim Watson
Water & Sewer Departments

Attn: Lenny Izzo


Re: Milford Water Company Request for Zone II

Dear Lenny,

Attached is a request from the Milford Water Company to include a portion of land within Hopedale that is part of their Zone II under our Board of Health regulations and water protection Bylaws.

As you are well aware the protection of our drinking water is of great importance and it would be appreciated if your Board would adopt this area of Hopedale into you drinking water regulation. I anticipate including this area into the Water Departments bylaws at the spring town meeting.

Sincerely


Tim Watson, Manager
Water & Sewer Departments

Cc: Water and Sewer Commission
Milford Water Company



COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

SI51-24J

MITT ROMNEY
Governor

KERRY HEALEY
Lieutenant Governor

STEPHEN R. PRITCHARD
Secretary

ROBERT W. GOLLEDGE, Jr.
Commissioner

October 7, 2005

Milford Water Company
Mr. Mark Dana
66 Dilla Street
Milford, MA 01757

Re: Milford Water Company, Best Effort Compliance, Wells 01G through 06G

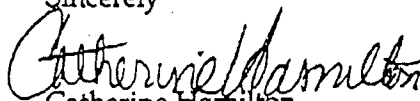
Dear Mr. Dana:

The Milford Water Company, #2185000, is in compliance with the DEP's Best Effort Requirement 310 CMR 22.21(1)(d), for the above listed wells. The following documents are evidence of your compliance and are on file in the Department's Drinking Water Program:

- Letters (9/2005) to the Town of Milford requesting amendment to Milford's Water Resources Protection District Bylaw, and the adoption of a Floor Drain control.
- Letter (9/2005) to the Town of Hopedale requesting protection of the Zone II extending into Hopedale from the Godfrey Brook Wells 03G, 04G, 05G.

We thank the Milford Water Company and the Town of Milford for your efforts in protecting public drinking water supplies in Massachusetts. If you have any questions concerning this letter, please contact me at 617-556-1070.

Sincerely



Catherine Hamilton
DEP/DWP Boston

cc:

Town of Milford Planning Board, Board of Health
Barbara Kickham, DEP/CERO

This information is available in alternate format. Call Donald M. Gomes, ADA Coordinator at 617-556-1057. TDD Service - 1-800-298-2207.

DEP on the World Wide Web: <http://www.mesa.gov/dep>

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ST51-24K

MILFORD WATER COMPANY

66 Dilla Street • Milford, Massachusetts 01757-1104
www.milfordwater.com • 508-473-5110 • fax 508-478-7997

October 31, 2005

Mr. Paul Anderson
Department of Environmental Protection
Central Region Office
627 Main Street
Worcester, Ma. 01608

Re: PWS 2185000
PWS Name Milford Water Company
Comprehensive Compliance Evaluation
& Notice of Noncompliance
NON-CE-05-5D023

Dear Mr. Anderson:

Attached please find copies of the fall analysis for the MPA tests that were collected in September 2005. These samples were a required corrective action from the Sanitary Survey Compliance Plan dated March 9, 2005. These results are for our sources at the Dilla Street wells 2185000-01G and the Clarks Island wells 2185000-02G.

As always if there are any questions do not hesitate to call me at 508-473-5110.

Very Truly Yours


Mark W. Dana
Assistant Manager

Cc: Mr. Edward Gates
CCE file
Attachments

Progressive Public Service for Over 100 Years

SI51-24L



MILFORD WATER COMPANY

Progressive Public Service for Over 100 Years

June 24, 2005

Department of Environmental Protection
Central Regional Office
627 Main Street
Worcester, MA 01608

Attention: Paul R. Anderson, Section Chief

Subject: **Milford Water Company**
Unaccounted for Water Policy

Dear Sir:

As directed in your Comprehensive Compliance Report dated December 4, 2004 which was conducted by Edward Gates of the DEP, we attach a copy of the Milford Water Company's Water Policy approved by its Board of Director's on June 23, 2005, to take effect July 1, 2005, upon approval by the DEP.

We invite your comments and approval of this document.

All 870 of our hydrants were flushed during the 2nd Quarter, and RFQ's are in process to leak survey and audit firms, to conduct their surveys in the 3rd Quarter. The results of their surveys will be forwarded to you as soon as they are completed.

The Milford Water Co. gratefully acknowledges the receipt of a DEP grant through the "Water Loss Prevention Competitive Grant Program" in an amount not to exceed \$12,300.00. These funds will be used to underwrite our leak detection survey scheduled for mid-summer, 2005.

Under the direction of Assistant Manager Mark Dana, we continue to work on the matters outlined in your CCE report of 12/04/04, and are pleased to show slow but steady progress in implementing your directives.

Very truly yours,

Leonard H. White
President

LHW/dlr
Atch.

cc: Henry Papuga - MWC
Mark Dana - MWC

66 Dilla Street • Milford, Massachusetts 01757-1104 • 508-473-5110 • Fax 508-478-7997



MILFORD WATER COMPANY

Progressive Public Service for Over 100 Years

5751-24M

MILFORD WATER COMPANY

Unaccounted for Water Policy

6-23-05

The Board of Directors, at their Quarterly Director's Meeting of June 23, 2005, have discussed and approved the following Unaccounted for Water Policy for the Milford Water Company, to take effect on July 1, 2005.

- The amount of unaccounted for water in the Milford Water Company's water system should remain under 15% at all times, with a goal of 10% or less.
- To achieve the above goals, a full leak detection survey of the distribution system must be conducted every two years by a qualified, professional survey company. A water audit, which will include the leak survey, will be conducted by a qualified consulting firm from time to time, as long as the value of unaccounted for water exceeds 15%. The first such water audit will be completed by September 30, 2005.
- Any leaks detected by the above surveys will be repaired within 30 days.
- Leakage and audit reports shall be prepared and submitted to the Milford Water Company and the DEP.
- The MWC shall calibrate its master meters annually to ensure water meter accuracy.
- All customers with meters 3" in size or larger will be tested and calibrated annually, at the expense of the Milford Water Company.


SF51-24M2

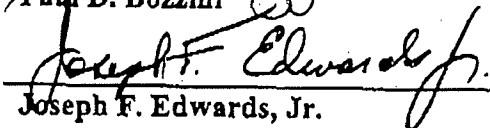
MILFORD WATER COMPANY
Unaccounted for Water Policy

Page 2

The above Unaccounted for Water Policy is approved by the Board of Directors of the Milford Water Company, July 23, 2005.

Signed by:

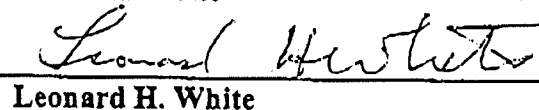

Paul D. Bozzini


Joseph F. Edwards, Jr.

not in attendance
John Peters III


Henry C. Papuga

not in attendance
David H. White


Leonard H. White

5751-24N

**MILFORD WATER COMPANY**

66 Dilla Street • Milford, Massachusetts 01757-1104
www.milfordwater.com • 508-473-5110 • fax 508-478-7997

July 6, 2005

Mr. Paul Anderson
Department of Environmental Protection
Central Regional Office
Worcester, Ma. 016008

RE: PWS 2185000

PWS Milford
PWS Milford Water Co.
Comprehensive Compliance Evaluation (CCE)
& NON-CE-05-5D023

Dear Mr. Anderson:

Attached please find a copy of the Consumer Confidence Report for the Milford Water Company that was mailed to the MWC customers in June 2005. Also attached is a copy of the consumer Confidence Report Certification. This was one of the comments in the CCE report that was conducted on December 4, 2004.

As always if there are any questions or comments do not hesitate to call me.

Very Truly Yours

Mark W. Dana
Assistant Manager

Cc Mr. Edward Gates

Progressive Public Service for Over 100 Years

5751-240

**MILFORD WATER COMPANY**

66 Dilla Street • Milford, Massachusetts 01757-1104
www.milfordwater.com • 508-475-5110 • fax 508-478-7997

August 17, 2005

Department of Environmental Protection
Central Regional Office
627 Main Street
Worcester, MA 01608

Attention: Paul R. Anderson, Section Chief

Subject: **Milford Water Company**
Water Conservation Policy

Dear Sir:

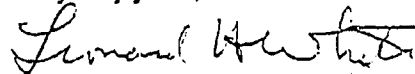
Your Comprehensive Compliance Evaluation (CCE) dated December 4, 2004 suggested that the Milford Water Company (MWC) should adopt a more aggressive Water Conservation Policy for its household customers. As a result, the MWC management team has proposed the following operational changes, all of which will be submitted for approval in the upcoming rate case to be filed in September '05 for the test year 2004.

The list of conservations measures is as follows:

- Elimination of the existing descending block rate structure, and the adoption of a flat rate charge for all water sold.
- Eliminate minimum water allowances.
- Charge individual customers a quarterly (or monthly) service charge by meter size, plus a volumetric charge beginning at the first cu.ft. of water metered.
- Management will institute a water conservation surcharge on all household customers using in excess of 1,000 cu.ft. per household per month.
The surcharge will be twice the base rate.
- Ban all new lawn irrigation systems after 1/1/05.
- A formal leak survey and audit will be conducted at least every two years.

If these measures are approved by the DTE, they should have a considerable impact on our conservation efforts.

Very truly yours,


Leonard H. White
President

LHW/dlr

cc: Henry Papuga - MWC
Mark Dana - MWC

Progressive Public Service for Over 100 Years

5751-24P

MILFORD WATER COMPANY

66 Dilla Street • Milford, Massachusetts 01757-1104
www.milfordwater.com • 508-473-5110 • fax 508-478-7997

September 30, 2005

Mr. Paul Anderson
Department of Environmental Protection
Central Regional Office
627 Main Street
Worcester, Ma. 016008

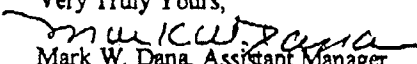
RE: PWS 2185000
Milford Ma.
Milford Water Company
Comprehensive Compliance Evaluation (CCE)
& Notice of Noncompliance
Non-CE-05-5D023

Dear Mr. Anderson

Attached please copies of letters sent the Town of Milford Planning Board and Board of Health requesting that they amend the towns current Water Resource Protection Bylaw, to meet the DEP's Wellhead Protection Regulations. Also included is a copy of the same letter that was sent the Town of Hopedale, because the zone II for the Godfrey Brook Well field extends into the town of Hopedale. These effects will put the Milford Water Company in compliance with Dep's Wellhead Protection Best Effort Requirement 310 CMR 22.21 (1).

If you have any questions concerning this letter, please contact me at 508-473-5110.

Very Truly Yours,


Mark W. Dana, Assistant Manager

Cc: Mr. Edward Gates
CCE file ✓
Attachments

Progressive Public Service for Over 100 Years

5751-240

**MILFORD WATER COMPANY**

66 Dilla Street • Milford, Massachusetts 01757-1104
www.milfordwater.com • 508-473-5110 • fax 508-478-7997

September 7, 2005

Mr. Larry Dunkin
Milford Planning Board
Town Hall
52 Main Street
Milford, MA 01757

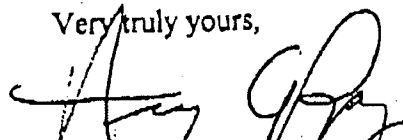
Dear: Mr. Dunkin,

Under the Best Effort Requirements 310CMR22.21 (1), non-municipal public water suppliers must demonstrate to the Department of Environmental Protection that they have used their best efforts to encourage municipalities to protect the Zone II recharge area with municipal protection controls (bylaws, health regulations).

The Town of Milford currently has a Water Resources Protection District Bylaw that meets most of DEP's Wellhead Protection Regulations. The Milford Water Company was notified recently by the DEP that the only language that does not meet DEP's regulations is the 'impervious surface' prohibition cited under Section 7.5.4C (c) of the bylaw. I am providing you a copy of the Zone II map along with a model Floor Drain Regulation that was provided by the DEP for your consideration. By amending this prohibition you will bring the bylaw into compliance with DEP's requirement.

If you have any questions concerning this matter please contact me at 508-473-5110.

Very truly yours,


Henry C. Papuga, Manager

Cc: Catherine Hamilton, DEP/DWP Boston
Paul Anderson DEP Central Region, Worcester
Attachment
CCE File

Progressive Public Service for Over 100 Years

SF51-24R

**MILFORD WATER COMPANY**

66 Dilla Street • Milford, Massachusetts 01757-1104
www.milfordwater.com • 508-473-5110 • fax 508-478-7997

September 7, 2005

Milford Board of Health
Town Hall
52 Main Street
Milford, MA 01757

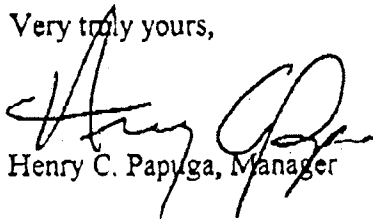
Dear: Mr. Kenneth C. Evans/ Chairman,

Under the Best Effort Requirements 310CMR22.21 (1), non-municipal public water suppliers must demonstrate to the Department of Environmental Protection that they have used their best efforts to encourage municipalities to protect the Zone II recharge area with municipal protection controls (bylaws, health regulations).

The Town of Milford currently has a Water Resources Protection District Bylaw that meets most of DEP's Wellhead Protection Regulations. The Milford Water Company was notified recently by the DEP that the only language that does not meet DEP's regulations is the 'impervious surface' prohibition cited under Section 7.5.4C (c) of the bylaw. I am providing you a copy of the Zone II map along with a model Floor Drain Regulation that was provided by the DEP for your consideration. By amending this prohibition you will bring the bylaw into compliance with DEP's requirement.

If you have any questions concerning this matter please contact me at 508-473-5110.

Very truly yours,


Henry C. Papuga, Manager

Cc: Catherine Hamilton, DEP/DWP Boston
Paul Anderson DEP Central Region, Worcester
Attachment
CCE File

Progressive Public Service for Over 100 Years

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

MILFORD WATER COMPANY RESPONSES TO THE
FIRST SET OF STAFF INFORMATION REQUESTS OF THE SETTLEMENT INTERVENTION STAFF
DTE 05-61

Respondent: Henry C. Papuga
Response Date: December 12, 2005

SIS 1-29 Refer the page 17 of Exhibit SBA-1. Please provide a copy of Milford's most recent capital expenditures plan. If such a plan does not exist in formal form, provide a summary of Milford's anticipated capital expenditures for the year 2005 through 2009.

Response: Each year the manager of the Milford Water Company prepares an operating budget and capital budget. The proposed operating and capital budgets are presented to the company's Board of Directors for review, discussion and approval. A copy of the company's 2004 and 2005 capital budgets are attached.

Milford Water Company
2004 Preliminary Capital Budget

Plant Account	Project	Estimated Cost
103	Watershed Land Acquisition	\$ 25,000.00
104A	Clarks Island Well Improvements	8,000.00
104A	Construct Louisa Lake Diversion	200,000.00
104A-F	Implement Security Systems, Fences & Alarms	65,000.00
104B	Construct Office Addition to 64-66 Dilla Street	125,000.00
104C	Construct Office within DE Filter Plant	6,000.00
105A	Replace Clarks Island Pump	10,000.00
107	Reactivate Slow Sand Filter #1 - Install Pump	25,000.00
107	Convert Slow Sand Filter #2 into Clearwell	50,000.00
108A	Replace Water Mains on Streets to be Paved	150,000.00
109A	Replace Lead/Iron Services	10,000.00
110A	Purchase/convert Commercial Meters to Remote	175,000.00
112A	Replace 5 Fire Hydrants	6,000.00
114	Upgrade Office Computer Hardware & Software	36,000.00
115	Purchase Misc. Plant Equipment	10,000.00
117	Replace 1994 Utility Truck	30,000.00
119	Replace 1990 Case Tractor/backhoe	75,000.00
Grand Total		\$1,006,000.00

Milford Water Company
2005 Final Capital Budget

Plant Account	Project	Estimated Cost
104A	Clarks Island Well Improvements	8,000.00
104A	Godfrey Brook Well Improvements	2,500.00
104A	Construct Louisa Lake Diversion	200,000.00
104A-F	Implement Security Systems, Fences & Alarms	65,000.00
104B	Construct crew office at 68 Dilla Street	30,000.00
104C	Construct Operator office within DE Filter Plant	6,000.00
105A	Replace Clarks Island Pump	10,000.00
107	Resand filters #3 & #4 - expensed	
107	Reactivate Slow Sand Filter #1 - Install Pump	150,000.00
108A	Replace Water Mains on Streets to be Paved	300,000.00
109A	Replace Lead/Iron Services	10,000.00
110A	Purchase/convert Commercial Meters to Radio Read	175,000.00
112A	Replace 5 Fire Hydrants	6,000.00
114	Upgrade Office Computer Hardware & Software	36,000.00
115	Purchase Misc. Plant Equipment	10,000.00
Grand Total		\$1,008,500.00

**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY**

**MILFORD WATER COMPANY RESPONSES TO THE
FIRST SET OF STAFF INFORMATION REQUESTS OF THE SETTLEMENT INTERVENTION STAFF
DTE 05-61**

Respondent: Henry C. Papuga
Response Date: December 12, 2005
Page 1 of 2

SIS 1-31 Refer to page 17 of Exhibit SBA-1. Please explain the basis for determining that meters in excess of four inches require the establishment of system development charges on a case-by-case basis.

Response: The Company has proposed a case by case basis for meters in excess of 4 inches, because it saw a need for some flexibility in determining the charge for very large developments. While continuing the same approach for meters larger than 4 inches as it has proposed for meters sized 4 inches and less, i.e., meter capacity ratio times \$2,900, would provide an easy and simple to administer rate structure, there was concern that the resulting charges would be viewed as discouraging development. Meter capacity charges for all offered meter sizes would have been as follows:

Meter Size	Capacity GPM	Ratio to 5/8	Calculated Fee
5/8"	20	1.00	\$2,900
3/4"	30	1.50	4,350
1"	50	2.50	7,250
1 1/2"	100	5.00	14,500
2"	160	8.00	23,200
3"	320	16.00	46,400
4"	500	25.00	72,500
6"	1,000	50.00	145,000
8"	1,600	80.00	232,000
10"	2,300	115.00	333,500
12"	4,300	215.00	623,500

Given the significant increase in charges for 6 inch and larger meters the Company proposed the case by case approach. That approach would involve evaluation of the water demand requirements of large new customers and determination of an appropriate connection charge based on factors such as the equivalent number of residential units. For instance the charge for a new 30 unit apartment or condominium served by a 6 inch meter could be 30 times \$2,900, i.e., \$87,000 instead of the \$145,000 required if the capacity ratio approach were adopted. Similarly when a commercial or industrial development with a large meter applies for service, the applicant would provide its water demand and usage estimates, the equivalent residential unit

**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY**

**MILFORD WATER COMPANY RESPONSES TO THE
FIRST SET OF STAFF INFORMATION REQUESTS OF THE SETTLEMENT INTERVENTION STAFF
DTE 05-61**

**Respondent: Henry C. Papuga
Response Date: December 12, 2005
Page 2 of 2**

SIS 1-31 (cont'd)

would be calculated and an appropriate system development charge determined.

The Company recognizes that other approaches are possible to meet Department objectives and would consider revising the proposed charges accordingly.

ATTACHMENT SIS1-23



ATTACHMENT SIS1-23

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Central Regional Office, 627 Main Street, Worcester, MA 01608

MITT ROMNEY
Governor

KERRY HEALEY
Lieutenant Governor

ELLEN ROY HERZFELDER
Secretary

ROBERT W. GOLLEDGE, Jr.
Commissioner

Milford - Milford Water Company
PWSID# 2185000

310 CMR 22.04 (12)
Comprehensive Compliance Evaluation (CCE) Sanitary Survey Stage 1
Notice of Noncompliance
NON-CE-05-5D023

On December 4, 2004, a Comprehensive Compliance Evaluation (CCE), Sanitary Survey, Stage 1 of the above referenced public water system (PWS) was conducted by Edward Gates of the Department of Environmental Protection (DEP), Drinking Water Program (DWP). The Milford Water Company was represented by Henry Papuga, Primary Certified Operator, at the time of the inspection.

A CCE is a review of the technical, financial and managerial components (Capacity) of a public water system to determine (1) whether the system meets current drinking water requirements and, (2) if the system has developed appropriate plans to meet future requirements for the production and distribution of safe drinking water. Technical capacity refers to the physical infrastructure, managerial capacity refers to the management structure, and financial capacity refers to the financial resources of the water system.

Attached you will find the following:

1. A completed Comprehensive Compliance Evaluation Form – "Sanitary Survey Report"
2. DEP inspection "Findings"
3. Appropriate Compliance Plan(s):
Table A-Violations,
Table B-Deficiencies, and
Table C-Recommendations
4. Sanitary Survey Compliance Plan Table A & B Response Form

During the course of the sanitary survey the Department discovered violation(s) of regulation or statute, that is, condition(s) in the source, facilities, equipment, operation and maintenance of the PWS which jeopardize the delivery of pure and safe water to all consumers (hereafter collectively referred to as "violations"). All violations found at the PWS are listed in Table A of the attached Compliance Plan. **Please note that the attached Compliance Plan is also a Notice of Noncompliance (NON) pursuant to M.G.L. c.21A, §16 and 310 C.M.R. 5.00.** Please review the items noted in the report and Compliance Plan. Please note that the NON requires, among other things, the submission of quarterly written progress reports on the identified violations.

Notwithstanding this Notice of Noncompliance, the Department reserves the right to exercise the full extent of its legal authority in order to obtain full compliance with all applicable requirements. Noncompliance

with the terms of the NON may result in further enforcement action, including the assessment of administrative penalties of up to \$25,000 for each day after the effective date of the NON during which each violation continues or is repeated, or the issuance of a unilateral administrative order requiring the necessary corrective action within a reasonable time period. Noncompliance with the terms of such an order may result also in further enforcement action, including the imposition of penalties of up to \$25,000 for each day after the effective date of the Order during which each violation continues or is repeated.

In addition to the violations summarized in Table A, the DWP has made note of several items that do not reflect good water system practice and, if left unresolved, could lead to problems that are more serious. Some of these items may be potential violations, and are summarized in Table "B" at the end of this report. Due to the item's severity or importance the DWP has included a required course of action with a compliance date. Other items with a recommended course of action with no compliance date are summarized in Table "C". Milford Water Company is strongly encouraged to follow not only the required actions within the timeframe but also the recommended actions. Failure to do so could eventually lead to further violations of the regulations. The DWP looks forward to a timely completion of the required and recommended actions identified in the Findings and attached Compliance Plan Tables.

Regional DWP staff would like to take this opportunity to thank you for providing the necessary time and information to properly complete a survey of this complexity. The DWP staff in this region looks forward to working together with the responsible officials for your public water system to help you achieve and maintain compliance with the drinking water regulations and improve the overall quality of your system. If you have any questions please contact Edward Gates at 508-767-2786.

Enclosures: Comprehensive Compliance Evaluation-Sanitary Survey Stage I – DEP Findings
Compliance Plan – Table(s) & Response Form Signature Page

Additional Forms:

- Public Water Supply Staffing Plan
- method for calculating the connection fee

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FINDINGS

SYSTEM DESCRIPTION

PWSID	PWS NAME	TOWN	CLASS	SUMMER	WINTER
2185000	MILFORD WATER COMPANY	MILFORD	COM	27100	27100

Milford Water Company is a community public water supply located in the town of Milford, Massachusetts and serves a drinking water population of approximately 27,100 persons per day. The service area consists of 7,632 residential connections, 663 commercial, 75 industrial, 76 municipal connections. The water system currently obtains its water from two surface water sources which provide 71% of supply and three ground water sources which provide 29% of the supply. Milford Water Company is classified as a class 3-distribution system as defined in 310 CMR 22.11B(4)(c). The treatment facilities are classified as a class 2-treatment. The water is treated and then pumped into the distribution system by three pump stations. Water storage and water pressure is provided by two standpipes, located in the distribution system. The water system has two pressure zones. The pressure is maintained between 60-130 PSI. A SCADA System monitors the operation of the water system. The water level in the Highland Street Storage Tank controls the operation of the pump stations which in turn controls the parco-valve chamber and the well pumps. All wells are operated automatically except 03G, 04G, and 05G which are controlled manually. The parco-valve chamber regulates the flow of water from Echo Lake. The water flow is metered at each pump station, treatment plant and every service connection. The Town of Milford does have an Aquifer Protection District Zoning by-law, Water Use Restriction by-law, approved Zone II's for each of the wells and a proactive cross connection control program. The Zone I for each well is 400-feet and 250-feet for the tubular well fields. The Milford Water Company does not have an emergency backup power supply capable of operating all components of the water system. The Dilla St. Pump Station is equipped with two backup pumps. The backup pumps are diesel powered and capable of pump 1600 and 900 GPM. These pumps can only pump finished water into the distribution system.

1700

1060

Treatment Plants

Dilla Street Water Treatment Facility (2185000-01T), located on Dilla St., receives water from Echo Lake Reservoir (02S), the Charles River (01S), The Clark Island Tubular Well Field (TWF) (02G), Dilla Street Tubular Well Field (01G), and the Cedar Swamp Well (06G). The water is treated for removal of iron and manganese by means of Diatomaceous Earth(DE) filtration. The DE filtration plant consists of two treatment trains, one for surface water and the other for groundwater. Each filter train consists of two filter units operating in parallel. The filtration process proceeds as follows. The raw water enters the treatment facility and is injected with magnesium oxide. The magnesium oxide oxidizes the iron. Then potassium permanganate is added to the water to oxidize the manganese. The water then passes through four DE filters to remove oxidized iron and manganese and is deposited into the clear well. Chlorine gas is injected into the water as it leaves the clear well. Low lift pumps move the water from the clear well into the chlorine contact chamber. The water is then pumped from the contact chamber to the Dilla Street pump station. The water is injected with potassium hydroxide, for pH adjustment, before entering the pump station. The water is injected with zinc orthophosphate, for corrosion control, before leaving the pump station. High lift pumps deliver the water to the distribution system. In addition to DE filtration, water from both Echo Lake and the Charles River undergo Slow Sand filtration prior to the DE filtration process. The high lift pumps have a pumping capacity of 1,500 GPM. The treatment plant was designed to treat 1.4 MGD.

Godfrey Brook Treatment Plant (2018000-02T) located South Cedar Street, receives water from the three Godfrey Brook Wells (03G, 04G, 05G). The water undergoes packed tower aeration through two parallel aeration towers. The aeration process removes hydrogen sulfide, and carbon dioxide while oxidizing iron. The oxidized iron forms a precipitate which adheres to the media in the aeration towers. Chlorine, for disinfection, and potassium hydroxide, for pH adjustment, are injected into the water before the water enters

the clearwell after aeration. The water is injected with zinc orthophosphate, for corrosion control, before entering the distribution system.

Sources of Water

Dilla Street Tubular Wellfield (01G), located off Dilla St., consists of sixteen 2.5-inch diameter driven point wells that were driven to an average depth of 26-feet with 3-feet of screen. The wellfield was constructed in 1941. The wellfield has a Department approved maximum daily pumping volume of 0.675 MG and an approved Zone II (# 155). The maximum daily pumping volume was determined as part of the Zone II delineation for this well. The water from this source receives treatment at the Dilla Street Treatment Facility. This source is currently off line.

Clark Island TWF (02G) located off Sumner Street at Cedar Swamp Pond, consists of sixty-one 2.5-inch diameter driven point wells that were driven to an average depth of 40-feet with 5-feet of screen. The wellfield was constructed in 1962. The well field has a Department approved maximum daily pumping volume of 0.801 MG and an approved Zone II (# 155). The maximum daily pumping volume was determined as part of the Zone II delineation for this well. The water from this source receives treatment at the Dilla Street Treatment Facility. Water is withdrawn from the wells by a vacuum system located at the shore of the pond.

Cedar Swamp Well (06G), located off Sumner Street at Cedar Swamp Pond., is a naturally developed gravel well that was constructed to a depth of 43-feet with 33-feet of casing, a 10-foot screen and a submersible pump. The well has a Department approved Zone II (# 155). The water from this source receives treatment at the Dilla Street Treatment Facility. This well is currently inactive and is listed as an emergency source.

Godfrey Brook Well #1 (03G), located off South Cedar Street, is a sixteen-inch diameter gravel packed well that was constructed to a depth of 34-feet with 29 feet of casing, a 5-foot screen and a submersible pump. The wellfield was constructed in 1981.

Godfrey Brook Well #2 (04G), located off South Cedar Street, is a twelve-inch diameter gravel packed well that was constructed to a depth of 52-feet with 42-feet of casing, a 10-foot screen and a submersible pump. The well was constructed in 1974.

Godfrey Brook Well #4 (05G), located off South Cedar Street, is a sixteen-inch diameter gravel packed well that was constructed to a depth of 42-feet with 32 feet of casing, a 10-foot screen and a submersible pump. The well was constructed in 1981.

Wells 03G, 04G, and 05G have a Department approved combined maximum daily pumping volume of 0.79 MG and approved Zone II (# 155). The approved maximum daily pumping volume was determined as part of the Zone II delineation for these wells. Each well is equipped with its own well pump and discharges into a common transmission line. The water flows to Godfrey Brook Pump Station where the water is treated before entering the distribution system.

The Charles River (01S) abuts the Dilla Street facilities. The Milford Water Company has four intakes on the Charles River. The Charles River is a seasonal water source. Water is withdrawn from the river during the spring or when high flow allows. Water taken from the river can either flow to either into the treatment facility or be diverted to Echo Lake to fill the reservoir.

Echo Lake Reservoir (02S), located in Hopkinton, is the main source of water for the water system.. Water flows by gravity to the Dilla Street facilities where a parco valve regulates the flow of water into

two uncovered slow sand filter beds.

Lake Louisa (03S) is currently an emergency source of water. The water system must receive approval from the Department before this source can be utilized.

Treatment Processes

The potassium hydroxide feed system at the Dilla St. Facility consists of a day tank, a bulk chemical storage tank with secondary containment area, a chemical feed metering pump and a pH analyzer for continuous monitoring of pH. The potassium hydroxide feed system at the Godfrey Brook Facility is similar to the feed system at the Dilla St. Facility except that the Godfrey Brook Facility **does not** have continuous monitoring of pH.

The zinc orthophosphate feed system consists of a day tank, a bulk chemical storage tank with secondary containment area, and a chemical feed metering pump.

The chlorine gas feed system, for both treatment facilities, are vacuum systems with stainless steel lines, two scales each with a two tank capacity, automatic switch over and continuous monitoring of chlorine residual.

The chemical feed pumps are interlocked with the low lift pumps at the Dilla Street Facility, and the Godfrey Brook Pump Station.

Water Storage Facilities

The Milford Water Company has two active water storage facilities. The Congress Street Storage (Tank #1) is a 1.1 million gallon steel standpipe constructed in 1941. The Highland Street Storage Tank (Tank #2) is a 0.27 million gallon steel standpipe constructed in 1964. The Bear Hill Storage Tank (Tank #3) was recently taken out of service and decommissioned. The water line was looped so that the Bear Hill area is supplied by the Highland Street Tank. The Congress Street Storage Tank is equipped with high/low level alarms and a SCADA system that regulates the operation of the water system. The water pressure in the system ranges from 38-116 PSI. Dilla Street Water Treatment Facility has a 0.17 MG chlorine contact chamber and a clear well. The Godfrey Brook Treatment Plant has a 0.1 MG clear well. The water system is not able to provide water storage equal to its maximum daily demand for up to 24 hours.

ADMINISTRATION

FACILITY INFORMATION:

PWS NAME	ADDRESS	TOWN	ZIP	EMAIL ADDRESS	FACILITY PHONE#	FACILITY FAX#
MILFORD WATER COMPANY	66 DILLA ST	MILFORD	017570000	hpapuga@milfordwater.com	5084735110	5084787997

MAILING INFORMATION:

PWS MAIL NAME	MAIL LINE1	MAIL TOWN NAME	MAIL STATE	MAIL ZIP CODE
MILFORD WATER COMPANY	66 DILLA ST	MILFORD	MA	017570000

OWNER/CONTACT INFORMATION:

PWSID	First	M	Last	Address	Address	Town	State	Zip	Work#	Home#	Primary
2185000	Henry	C	Papuga	Milford Water Company	66 Dilla Street	Milford	MA	017570000	5084735110		Y

PRIMARY OPERATOR MAILING INFORMATION:

PWSID	First	MI	Last	Address	Address	Town	State	Zip	Work#	Home#
2185000	Henry	C	Papuga	Milford Water Company	66 Dilla Street	Milford	MA	017570000	5084735110	

0.27
4.02

SYSTEM CLASSIFICATION: 310 CMR 22.11B

PWSID	Distribution Class	Population Served	Treatment Class
2185000	III-D	27100	II-T

The Department has reviewed the classification status of the Milford Water Company's Distribution System and has determined that a system serving a population of 27,100 residents is rated as a Class 3 D system.

The Department has reviewed the classification status of the Milford Water Company's Treatment Operations and has determined that the due to the type of treatment provided Milford Water Company is rated as a Class 2 T system.

CERTIFIED OPERATOR: 310 CMR 22.11B

Milford Water Company currently meets the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

Under 310 CMR 22.11B(1), every public water system shall be operated at all times that the facility is in operation, by a primary operator, unless otherwise authorized by the Department.

Milford Water Company is required to support as a minimum, the following operational staff:

- a. One distribution operator serving as the primary operator who holds a Grade 3 D license. The primary operator is directly responsible for the operation of the distribution system. The primary operator must be present five days a week and be available to respond to emergencies within one hour at all other times.
- b. A secondary distribution operator holding a minimum of a Grade 2 D license must be designated to serve as the primary operator in his or her absence. (i.e., during vacations, sick leave, etc.)
- c. One treatment operator serving as the primary operator who holds a Grade 2 T license. The primary operator is directly responsible for the operation of the treatment facility. The primary operator must be present five days a week and be available to respond to emergencies within one hour at all other times.
- d. A secondary treatment operator holding a minimum of a Grade 1 T license must be designated to serve as the primary operator in his or her absence. (i.e., during vacations, sick leave, etc.)

Milford Water Company is presently operated by the following licensed operators:

PWSID	First	MI	Last	POSITION	GRADE	LICENSE#	PRIMARY AFFILIATE
2185000	FRANK		ASTEPHAN	OPERATOR	C3	961	N
2185000	HERBERT	W	JOYCE	OPERATOR	T1 D2	4892 5306	N
2185000	HENRY	C	PAPUGA	OPERATOR	C4	1146	Y
2185000	ROBERT	M	BICKFORD	OPERATOR	C3	619	N
2185000	RUSSELL	P	LUCIER	OPERATOR	3D/1T	5505/4675	N

- Milford Water Company must submit a Public Water System Staffing Plan for DEP review and approval.
- According to the Massachusetts Board of Registration the certification status of the drinking water operators listed are current. <http://license.reg.state.ma.us/public/licque.asp?color=red&Board=DW>

Please be advised, all licensed operators are required to have minimum hours of Continuing Education Units (CEUs) or Training Contact Hours (TCHs) within a two-year cycle in order to renew their licenses. For the purposes of these operator license renewals, 1 CEU is equivalent to 10 TCHs. VSS and VND licenses require 5 TCHs. Grade I and II licenses require 10 TCHs. Grade III licenses require 15 TCHs and Grade IV licenses require 15 TCHs. DEP will accept most courses related to the job that grants continuing education credits. In addition, DEP will grant 1 TCH per year for belonging to American Water Works, New England Water Works, and Mass. Water Works, and 0.5 TCH for belonging to Western Mass. Water Works, up to a total of 3 TCHs per year.

- Milford Water Company does not have an adequate plan that encourages staff to attend further educational instruction in water operations.
 - Milford Water Company does not have a written plan for staff training.
 - Milford Water Company does provide incentives to staff to increase their knowledge on water supply.
 - Milford Water Company does not pay for membership in professional trade associations.
 - Milford Water Company is not a member of the New England Water Works.

Milford Water Company does not have a written training policy and does not have a budget line item for training, although it does have guidance in its Employee Handbook. To maintain and improve the competency of all aspects of the water system operation DEP recommends training for all staff, including office staff, and upper management. In developing a written training policy management may wish to consider some or all of the following elements:

- The policy regarding time off from work with pay to attend training and attending training during off duty hours such as nights or weekends.
- Use of Company vehicles to attend training or paying mileage.
- Company payment of registration fees.
- Discussion with the Company's insurer concerning training that all workers should receive, such as confined space entry, traffic safety training, heavy equipment safety, hazard recognition, and other such topics.
- Procedure for approving or authorizing training.
- Methods for recognizing training achievements, such as noting it in the Annual Report or posting certificates on the wall or noting them in the Consumer Confidence Report, or giving a pay raise.

It is recommended that the Company adopt a written training policy.

Money for training is included in account number 61011, but it is not possible to determine from that account number how much is actually spent on training. The system reports that it must conform to DTE accounting formats, which do not allow for a training line item, but it could establish a training sub account within account 61011.

It is recommended that the Company establish a method to track training expenses.

MANAGEMENT: 310 CMR 22.04 & Ch. 11 Guidelines & Policies

Milford Water Company currently meets the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

As part of the 1996 Amendments to the Federal Safe Drinking Water Act, DEP must evaluate public water systems for "capacity". Capacity is the ability of a public water system to plan for, achieve, and maintain compliance with applicable federal and state drinking water standards for the foreseeable future. There are

three areas in which a water system must demonstrate effective controls: technical, managerial, and financial. Adequate capability in all three areas is necessary for a system to be determined to have "adequate capacity." A system's capacity rating may affect a public water systems' eligibility to receive funding for water projects through the Drinking Water State Revolving Fund (DWSRF) Program.

The Department's "2001 Guidelines and Policies for Public Water Systems" now includes guidelines on management and financial capacity in addition to the technical guidelines. **All water systems should refer to and comply with the applicable requirements in Chapter 11 of the 2001 Guidelines and Policies for Public Water Systems (<http://www.state.ma.us/dep/hrp/dws/files/guides/guides.htm>) in order to achieve and maintain "adequate capacity."**

Chapter 11 addresses many topics such as authority and responsibilities, standard operating procedures, policies (water connections, water conservation, leak detection, etc.), capital improvement and master plans.

The Milford Water Company is an investor owned company. The Board of Directors provides guidance to the Manager who supervises the staff. As a private company it falls under the jurisdiction of the Department of Telecommunications and Energy as well as the Department of Environmental Protection. It sells water to the Hopedale Water Department. It sells water to the Mendon Water Department and manages the system under the supervision of the Mendon Water Commissioners.

The Milford Water Department has their regulations posted on the internet at WWW.MilfordWater.com, and reports having, adequate insurance, a Capital Improvement Plan, and a Master Plan. Having these indicates good management practices.

The consumer confidence report (CCR) is a good way for a public water supply to tell customers about improvements to their water system and upcoming projects. Although the rules require water suppliers to report test results for the prior calendar year or the most recent monitoring period, nothing prohibits the water supplier from giving customers up-to-the-minute news and other current information. As an annual communications tool, the CCR can also enlist the cooperation of customers by providing information about water conservation efforts required by the water withdrawal permit, tips on source protection, projects that have been done over the past year, upcoming projects, training accomplishments of the staff and other news, which demonstrates the professionalism and competency of the water department and its staff. In addition, consider referring your customers to the following website for additional information about state and federal drinking water standards, specific contaminants, water conservation, and other topics of interest to residents and businesses: www.madwep.org. Milford Water Company does use the CCR for some outreach, but more should be considered.

It is suggested that better use be made of the Consumer Confidence Report.

Management in recent years is having some difficulty reducing unaccounted for water below 15%. Studies by other water systems have found that many commercial and industrial users have oversized meters. These oversized meters are more costly to buy and under report low flows causing loss of revenue to the water system and increased unaccounted for water. Milford Water Company uses it computers to analyze water consumption by customer and has down-sized some meters.

It is suggested that Management amend the existing policy of meter study and more aggressively down size meters where appropriate for the largest water users.

Milford Water Company declared a drought emergency in 2002. It is doing a number of things to ensure having an adequate supply of water, but may want to consider doing substantially more to reduce water usage. This might include technical assistance to larger water users to reduce their water use, and

consideration of upgrading general water conservation efforts.

It is suggested that Management consider a more aggressive water conservation policy.

Several 40B housing developments and other new construction are being considered within the service area of Milford Water Company. At the same time the Company reports abandoning efforts to develop a water source at North Pond. The company should have concerns about how long it can reasonably be expected to meet the increasing demand within its current water supply structure. The Board of Directors should forth with determine the amount of reserve capacity that is appropriate for the system, what surplus capacity remains after allowing for reserve capacity, how long that surplus capacity will last at anticipated rates of new water demand, and what actions the Milford Water Company will take to avoid over committing its water resources. The range of options considered by the Board should be extensive and include, but not be limited to, long term contracts to purchase water from neighboring systems, significantly reducing system demand, and prohibiting new connections,. An example from another water system's regulations of one possible aspect is a Water System Impact Report, "Any eligible person or corporation who desires public water supply to serve a new development or a water main extension in (the system) must first make a written request to the Water Department to see if it has the capacity to supply the water (Water System Impact Report) . . ." System improvements currently being undertaken are an important step toward dealing with near term issues, but do not appear to be adequate long- term solutions.

The Board of Directors should forth with develop a long-term response to demand strategy.

The Management of Milford Water Company is competent, but not always responsive. DEP believes the higher level enforcement (fine) to the Mendon Water Department was caused in large measure by inattention of Milford Water Company, the contract operator for the system. The fine could have been avoided if Management had been more responsive. The CCE Notice of Non-Compliance received by Milford Water Company in 2002 was because of a lack of responsiveness to repeated DEP requests. A pattern of lack of responsiveness has, at other times, also strained relations with DEP. Management seems to be unaware of the responsiveness "gap" and may wish to get a third party opinion and guidance.

Management responsiveness should be reviewed.

DEP staff was referred to the Milford Water Company web site for information on regulations and policies. There was no information there on Antenna/Cell Tower regulations, and no written Unaccounted for Water Policy. It is suggested that Milford Water Company review DEP Policy DWSP98-01 and 01a, Policy On Antennae And/Or Other Appurtenances Proposed To Be Attached To Public Drinking Water Storage Tanks, Or On Water Supply Land, and formally adopt appropriate sections. The Milford Water Company Manager has identified several areas that may contribute to the high unaccounted for water, and hopes that it will be lower than 15% for calendar year 2004. However, DEP feels that a written Unaccounted for Water Policy that explicitly states the elements to be considered and timing of activities would be helpful.

Adoption of a written Antenna Policy and a written Unaccounted for Water Policy is recommended.

The amount of unaccounted for water for a well-run system should be below 10% of total water consumption, and should remain under 15% at all times. In recent years Milford Water Company has not been able to meet the standard of 10%. This year it has done leak detection and repaired the seven leaks found. A water audit may be conducted to identify the sources of unaccounted for water and ways to reduce this amount. Systems that conduct leak detection surveys and promptly repair leaks should see a reduction in unaccounted for water in the future. Systems with a Water Management Act permit are required to conduct leak detection surveys every two years and repair leaks found within 7 days.

Another method used by systems to reduce unaccounted for water is to calibrate their hydrants, and other water metered water discharges. A meter is put on each hydrant used for flushing and the flow rate is recorded. Then when the system is flushed a careful record is maintained of when each hydrant is opened and when it is closed. This allows a computation of the amount of water used at each hydrant. This amount and other calibrated uses, such as metering blow-offs or bleeders, discharge to waste of metered filter water, flushing that may be used to protect lines from freezing or because of elevated levels of PCE (associated with vinyl-lined asbestos cement distribution pipe), is recorded noted as "Other," rather than unaccounted for, on the Annual Statistics Report.

There are various ways to reduce unaccounted for water (see the comments on Meter study). The goal is to internalize efforts to reduce unaccounted for water and improve water conservation.

The Board of Directors shall adopt a written Unaccounted for Water Policy by June 30, 2005.

Compliance reporting to regulatory agencies has significantly increased in recent years due to the number of new regulations. In addition reporting requires a higher level of technical expertise due to the complexity of these regulations. As a result, this responsibility demands more of a water supplier's time than in the past. Water suppliers have had to adapt by delegating such duties that used to be completed by management staff to operational staff or by enhancing the flow of information between management and operational staff so that the reporting is completed on time and with technical accuracy.

It is recommended that Management improve communications with operational staff in an effort to improve compliance reporting to DEP.

FINANCIAL: 310 CMR 22.04 & Ch. 11 Guidelines & Policies

Milford Water Company currently meets the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

As noted in the Management Section above, DEP must evaluate public water systems for "capacity", which includes the financial capability to maintain compliance with applicable federal and state drinking water standards for the foreseeable future. A system's capacity rating may affect a public water systems' eligibility for DWSRF loans. As stated above, **refer to and comply with the applicable requirements in Chapter 11 of the 2001 Guidelines and Policies for Public Water Systems in order to achieve and maintain "adequate capacity."** Chapter 11 addresses many topics that relate to financial aspects of the water system such as water rates, water service fees, accounting and budgeting.

In 2001 Milford Water Company had metered sales revenues of about \$2.7 million, and total operating revenues \$3.2 million with operating expenses of about \$2.4 million, which yielded an operating income of about \$790,000. Other income and expenses and provision for income taxes yield net income of about \$383,000, which indicates adequate financing of system operations.

Milford Water Company has special water rates for fire protection, sales to other utilities and for low-income metered connections. This is good financial practice.

Milford Water Company reports that the Manager approves the expenditures and signs the checks. While this system seems to have worked for Milford Water Company, DEP recommends that expenditure approval and check signing be done by different people as an additional check and balance.

It is suggested that the expenditure approval and check signing policy be reviewed.

Milford Water Company has a descending block rate structure approved in June 1999 by the Department of Telecommunications and Energy (DTE). The AWWA describes a descending block rate structure as being used to encourage water use. In Massachusetts this rate structure is not legal for public sector water systems, but not prohibited for private systems. A Memorandum of Agreement (MOA) between DTE and DEP approved in 1998 assumes that privately owned water systems will use a flat rate or ascending block rate structure and places an extra burden on an applicant seeking to use a descending block rate structure. The goal of this MOA is to encourage water conservation. The 2001 Guidelines and Policies for Public Water Systems at 11.5.1.3 states, "Ascending/increasing block rates and flat rates are the preferred rate structures ..." Milford Water Company may wish to demonstrate its commitment to water conservation by filing for a new rate structure.

Consideration should be given to adopting an increasing block rate structure.

The monthly rate structure is as follows:

For the first 3,000 cubic feet (cf) per month \$2.417 per 100 cubic feet (HCF),

For the next 30,000 (cf) per month \$1.490/HCF,

Above 33,000 cf per month \$1.104/HCF.

There is also a meter charge that increases with increasing meter size and a water allowance for each meter size which increases with meter size. Studies have shown that the average household uses about 1,000 cubic feet per month. This means that the average residential customers have a flat rate structure of \$2.417/HCF plus the meter charge of \$7.25 per month. DEP encourages a residential water conservation rate structure, which uses step rates to encourage conservation. The average household uses about 12,000 cubic feet of water per year or 1,000 cubic feet per month. Often water systems have their first step set so that the average water users, those that are careful and the elderly are not penalized, as Milford Water Company has done. There is often an additional step or two of increasing water rates for households that are not conserving. To encourage conservation DEP recommends that the highest step for residential customers using excessive amounts of water be at least twice the base rate. Revenues generated by this higher rate could be used to assist customers with water conservation as well as being assigned to specific line items to pay for projects to increase the hydraulic efficiency of the water system to meet the demands of excessive users. Steep rate increases to larger users may create a business hardship that might threaten the viability of the enterprise and probably should be preceded by aggressive technical assistance to reduce water use.

It is suggested that Management consider water conservation pricing.

The Company declined to release the amount owed by customers in arrears in a phone conversation with DEP, so a site visit was scheduled. The standard is that customers in arrears should not exceed 10% of metered sales or about \$270,000 and most municipalities are quite aggressive in collecting money and are around 5%. The amount owed by customers 90 days in arrears is \$6,013. This is exceptionally good performance, and the system is commended. Office staff mentioned that there is a shut off policy for non-payment, which is commendable.

The turn on/turn off fee is \$5 during working hours and \$10 after hours. Many water systems have found that turn off/turn on fees, connection fees, cross connection inspection fees and other fees are out of date. For example, the turn on/turn off fee should recover all costs associated with the activity from logging the call to sending out the crew and then recording the information. With increased salary and vehicle costs many water systems are finding that their fees need to be raised significantly. The true cost of the productive time of an employee to the company is much higher than the employee's hourly rate. The cost should include the fact the employee is paid for holiday, sick and vacation time that is not worked and the overhead costs of the employee should also be considered (health insurance, workmen's comp,

unemployment, Social Security Medical, etc). An article to assist in calculating the turn on/turn off fee is attached.

The turn on/turn off fee schedule should be reviewed and updated as needed.

The Connection Fee is \$150. This should be reviewed as part of the rate filing that is being considered for 2005. A draft article on one method for calculating the connection fee(which has not been peer reviewed yet) is attached for your review and comment.

The Connection Fee should be reviewed and updated.

Milford Water Company is commended for having its water rates on the internet. That said, it would be helpful to have additional information along with the rates on the website and on the rate cards. This would include back flow prevention device inspection fees, hourly charge, the connection fee, and the turn on fee and the fee for final meter reading.

Consideration should be given to providing information on fees and other charges on the website.

The system reports an annual capital investment of at least \$500,000 and up to \$1,000,000. It has a 5 year Capital Improvement Plan. It is an older system and demand for its water is increasing significantly. It reports not being able to install radio read meters because of a lack of capital. It might be beneficial for the system to do a 10 year Capital Improvement Plan based on the master plan and management's knowledge of needs to determine if the annual capital investment level is adequate.

Consideration should be given to determining if the current level of capital investment is adequate.

OPERATION & MAINTENANCE:

DEP recommends that a formal written maintenance schedule be established. At a minimum the schedule should include the time and frequency of the following items:

- a. Master meter inspection and calibration every year.
- b. Periodic inspection and calibration of the pump controls.
- c. Preventative maintenance on all pumps based on manufacturer's recommendations.
- d. Valve & fire hydrant maintenance.
- e. O & M manuals for all pieces of equipment as well as 'as-built' drawings of each facility should be kept on site or readily available at the office.
- f. The storage tank should be drained, inspected, and cleaned at least every five years.
- g. Leak detection should be performed every five years; two years for systems that have a WMA permit (use >100,000 gpd).
- h. Inventory of pipeline repair materials on hand or available within 6 to 12 hours.
- i. There should be enough couplings and repair bands to repair two breaks on each size and type of pipe.

A review of Milford Water Company's records show:

- Maintenance records are being maintained by staff.
- Spare parts inventory is adequate to prevent long delays in equipment repairs.
- Operation details are not posted for operator daily use for maintenance.
- O&M manual does provide guidance for operational decisions.
- Adequate resources are available for operation and maintenance (e.g., outside support, contractors).

SOURCE INFORMATION: 310 CMR 22.04, 22.21 & Ch. 3&4 Guidelines & Policies

WATER SOURCES:

PWSID	#Sources	%_GROUND	%_Purch_Ground	%_SURFACE	%_Purch_Surface	YEAR	Ave_Daily_Demand_(MGD)	MAX_DAILY_DEMAND (MG)
2185000	9	29	0	71	0	2003	3.1388	5.082
2185000	9	29	0	71	0	2002	2.8849	4.741
2185000	9	29	0	71	0	2001	3.1876	5.354
2185000	9	29	0	71	0	2000	3.0921	4.756

The Milford Water Company is supplied by the following source(s), which provides approximately 3.1 million gallons per day (mgd) to the public water system.

GROUNDWATER SOURCES:

SOURCE ID	SOURCE NAME	LOCATION	Availability	Well Type	Depth	Pump Setting
2185000-01G	DILLA ST. TWF (16 X 2.5)	MILFORD	ACTIVE	TUB	26	0
2185000-02G	CLARKS ISLAND TWF (61 X 2.5)	CEDAR SWAMP POND OFF SUMNER ST	ACTIVE	TUB	40	N/A
2185000-03G	GODFREY WELL # 1	SOUTH CEDAR ST	ACTIVE	GP	34	0
2185000-04G	GODFREY WELL # 2	SOUTH CEDAR ST	ACTIVE	GP	52	0
2185000-05G	GODFREY WELL # 4	SOUTH CEDAR ST	ACTIVE	GP	42	0
2185000-06G	CEDAR SWAMP GDW	WEST SHR OF MILFORD POND	EMERG	GD	43	0

SURFACE WATER SOURCES:

SOURCE ID	SOURCE NAME	LOCATION	AVAIL	TERMINAL RESERVIOR	Safe Yield (MGD)	Storage Capacity (MG)
2185000-01S	Charles River	DILLA ST.	ACTIVE	Y	0	0
2185000-02S	Echo Lake	HOPKINTON	ACTIVE	N	0	0
2185000-03S	Louisa Lake		EMERG	Y	0	0

PUMP STATIONS: 310 CMR 22.04 & Ch. 7 Guidelines & Policies

Milford Water Company currently meets the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

Department records show the Milford Water Company has a total pumping capacity of 2,300 gallons per minute (GPM).

The Milford Water Company has the following pump stations:

PWSID	PUMP_STATION_NAME	LOCATION	AVAILABILITY	WATER_TYPE	GP M	EMERG_POWER?	MOTOR_HP	MOTOR_TYPE
2185000	Congress St. Booster pump Station	CONGRESS ST	ACTIVE	F	0	N	0	
2185000	Dilla St. Pump Station	DILLA ST	ACTIVE	F	1500	Y	0	
2185000	Godfrey Brook Pump Station	GODFREY BROOK	ACTIVE	F	800	N	0	

- Floor drains are not located in pump station areas.

INTERCONNECTIONS TO OTHER APPROVED WATER SYSTEMS: 310 CMR 22.12

- Milford Water Company currently has the following interconnections with other approved public water systems:

PWSID	PWS	CONNECTION TYPE DESCRP	2nd PWS NAME
2185000	MILFORD WATER COMPANY	INTERCONNECTED WITH ANOTHER PWS	BELLINGHAM DPW. WATER & SEWER DIV.
2185000	MILFORD WATER COMPANY	INTERCONNECTED WITH ANOTHER PWS	HOLLISTON WATER DEPARTMENT
2185000	MILFORD WATER COMPANY	INTERCONNECTED WITH ANOTHER PWS	HOPEDALE WATER DEPARTMENT
2185000	MILFORD WATER COMPANY	INTERCONNECTED WITH ANOTHER PWS	HOPKINTON WATER DEPARTMENT
2185000	MILFORD WATER COMPANY	INTERCONNECTED WITH ANOTHER PWS	MEDWAY WATER/SEWER DEPARTMENT
2185000	MILFORD WATER COMPANY	INTERCONNECTED WITH ANOTHER PWS	MENDON WATER DEPARTMENT

Milford Water Company does maintain an interconnection with another approved water systems. There is a permanent direct connection that is valved and metered.

The water system interconnections with Mendon and Hopedale are connections that are used daily to sell water to both Mendon and Hopedale. Mendon does not have its' own source of water. Hopedale purchases water seasonally. The interconnections with Holliston and Medway are permanent emergency connections. The interconnections with Hopkinton and Bellingham are temporary hydrant to hydrant connections for emergency use.

- Interconnection valves are maintained and operable.
- Frequency inspected: Annually.
- Last date inspected: 2004.
- Interconnections are metered. The master meter to Mendon is broken and must be repaired.

SURFACE WATER SOURCES - Dam Maintenance: 302 CMR 10.00

Milford Water Company currently meets the requirements of the applicable regulations, guidelines and/or policies for this section.

- The Milford Water Company currently maintains 2 dams associated with the management and control of their reservoir system. These dams are regulated under DEM 302 CMR 10.00 Dam Safety Regulations and are periodically inspected by the Department of Environmental Management (DEM), Office of Dam Safety. Each dam is designated a hazard rating risk based upon the potential loss of human life or property damage in the event of failure or improper operation of the dam or appurtenant works.
- List Location of Dam(s), DEM Hazard Rating: High Hazard (H); Significant Hazard (S); Low Hazard (L); and Condition of the dam from the Last DEM Inspection (Unsafe, Poor, Fair, and Good).

<u>Dam Name</u>	<u>Hazard Rating</u>	<u>Condition</u>	<u>Last Insp. Date</u>
Lake Louisa Dam	Significant	Good	February 18, 2000
Echo Lake	Significant	Good	February 18, 2000

- All dams classified as high hazard are required to have an Emergency Action Plan ("EAP"). The EAP shall, at a minimum, contain the following: (a) the identification of equipment, manpower and material available for implementation of the plan; (b) a notification procedure for informing the local emergency agencies; (c) a dam failure inundation map for high hazard dams and a topographic map for significant hazard dams showing the stream which will be flooded; (d) and a procedure for warning nearby local residents if failure of the dam is imminent and a listing of addresses and telephone numbers of downstream residents who may be affected by the failure of the dam.

- For those dams rated either unsafe or in poor condition, enclose a copy of the corrective action plan that your system has submitted to DEM, detailing the steps that your system is taking to upgrade or make the necessary repairs and the associated timelines for completion.

RESOURCE PROTECTION: 310 CMR 22.04, 22.21, 22.20B, 22.20C, 36.00

Milford Water Company currently **does not meet** the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

GROUNDWATER SOURCES: ZONE I

The protection of a groundwater recharge area is critical to maintaining a safe and ample supply of water. Protection zones become more critical to water quality, and the activities within the zone more restrictive, as the wellhead is approached. Zone I is the most vulnerable and restrictive protection zone around a well. Depending upon pumping volume, a Zone I ranges from a radius of 100 to 400 feet around the wellhead. The Guidelines and Regulations specify that only activities that are both directly related to the water system and non-threatening to water quality occur within this zone. The Zone I should be owned or controlled by the water supplier.

Listed below is the Zone I radius for each well, the method of calculation used, whether or not the system completely owns or controls the Zone I, and any prohibited or inappropriate activities within the Zone I. If the well has not been assigned a DEP approved yield based upon a pumping test, the DEP has either assigned a Zone I radius based upon metered withdrawal records or Title 5 septic design figures.

Method of Zone I & IWPA Determination

P = DEP approved pumping rate by DEP approved pumping test

M = Metered water withdrawal records

T = Title 5 septic design figures

D = Default rate assigned by DEP until better data is available

A = Assigned rate by DEP (such as Zone II rate without DEP approved pumping test)

Method/Zone I

SOURCE ID	APPROVED VOLUME(MGD)	ZONE_I OWNED	WELLHEAD PROT PLAN	Method	Zone I (ft)	Pollution Sources in Zone I
2185000-01G	0.675	Y	Y	A	400	Road, Stream, Surface Drain, Sanitary Sewer, Resid., Etc.
2185000-02G	0.801	Y	Y	A	400	Stream, Sanitary Sewer
2185000-03G	0.79	Y	Y	A	400	Stream
2185000-04G	0.79	Y	Y	A	400	Stream, Part Residential
2185000-05G	0.79	Y	Y	A	400	

- The system is accurately reporting land use activities in Section F of its 'Annual Statistical Report'.
- The system has not experienced any new threats or protection concerns within the last year, e.g. beavers, new development.

Milford Water Company is in conformance with 310 CMR 22.21(3)(b), which requires ownership or control of the Zone I around its well. The Milford Water Company does completely own or control the Zone I radius around its well(s) as listed above.

Milford Water Company is not in conformance with 310 CMR 22.21(1)(a)5, which requires Zone I activities be limited to those directly related to the provision of public water. Prohibited activities were identified within the Zone I of its well(s) as listed in the previous above.

Pursuant to 310 CMR 22.04(1) and 22.21(1)(a) you must notify the DEP if you plan to modify or expand your system or to replace any wells. At the time of such notification of a proposed modification or expansion, DEP may require you to comply with the Zone I ownership and activities requirements listed above.

GROUNDWATER SOURCES: ZONE II and ZONE III

Zone II means that area of an aquifer that contributes water to a well under the most severe pumping and recharge conditions that can be realistically anticipated (180 days of pumping at approved yield, with no recharge from precipitation). Zone III means that land area beyond the area of a Zone II from which surface water and groundwater drain into the Zone II. All public water supply wells or wellfields designed to pump over 100,000 gallons per day should have a delineated Zone II and Zone III.

310 CMR 22.21 of the drinking water regulations outlines criteria to protect groundwater sources from contamination including the adoption of wellhead protection zoning and non-zoning controls. These may include but are not limited to criteria for the prohibiting of landfills, junkyards, stockpiling and disposal of snow or ice, petroleum/fuel bulk stations, floor drains, facilities that handle hazardous material, earth removal activities, and processed wastewater discharges. Municipalities are required to develop a Wellhead Protection Plan that includes zoning or non-zoning controls as a by-law. Non-municipal systems (e.g., Water Districts and Water Companies) must demonstrate "Best Effort" in providing wellhead protection. The DEP encourages all groundwater systems to develop a Wellhead Protection Plan.

- The Milford Water Company currently does have groundwater sources that pump greater than 100,000 gallons per day.

SOURCE ID	SOURCE NAME	APPROVED VOLUME(MGD)	LAST YEAR AVERAGE (MGD)	APPVD ZONE II	ZONE II NUMBER
2185000-01G	DILLA ST. TWF (16 X 2.5)	0.675	0	Y	155
2185000-02G	CLARKS ISLAND TWF (61 X 2.5)	0.801	0.2777	Y	155
2185000-03G	GODFREY WELL # 1	0.79	0.2170	Y	155
2185000-04G	GODFREY WELL # 2	0.79	0.2170	Y	155
2185000-05G	GODFREY WELL # 4	0.79	0.2170	Y	155

- The DEP does have a record indicating that Milford Water Company has an aquifer protection district. The DEP **does not** have a record indicating that Milford Water Company has a local floor drain regulation or a wellhead protection plan. Please contact Catherine Sarafinas-Hamilton at the DEP Boston Office at 617-556-1070 for technical assistance in this process. Milford Water Company is encouraged to adopt wellhead protection for all of its groundwater sources.

SURFACE WATER SOURCES: ZONE A, B, C

310 CMR 22.20B of the drinking water regulations outlines criteria to protect surface water sources from contamination. These may include but are not limited to Zone A, B and C criteria for the prohibition of new or expanded land uses such as underground storage tanks, above ground storage of hazardous material, compliance requirements for Title 5 systems, agricultural operations, burials, swimming and bathing, fishing, and herbicide application.

Zone A means the land area within 400 feet from the bank of a Class A surface water source and the land area within 200 feet from the bank of a tributary or associated water body.

Zone B means the land area within ½ mile of the bank of a Class A surface water source.

Zone C means the land area not designated Zone A or B within the watershed of a Class A surface water source.

The Milford Water Company has enforcement responsibilities with respect to the protection of the Zone A, B and C of its surface water source(s) including; regular and thorough inspections of the Zones A, B and C, annual reporting requirements to DEP of enforcement actions, and establishing a protocol that provides the system an opportunity to review and comment on all proposed new or expanded land uses or activities within the watershed. New or expanding surface water supplies are required to develop a Surface Water Supply Protection Plan. The DEP encourages all surface water systems to develop a Surface Water Supply Protection Plan.

Source ID	Source Name	SWTR_Waiver Granted	Watershed Prot Plan	POLLUTION_SOURCES	Availability Type Code
2185000-01S	Charles River	N	N	Road, Stream, Surface Drain, Resid., Commer., Septic Sys.	Active
2185000-02S	Echo Lake	N	Y	Road, Stream, Surface Drain, Resid., Septic System	Active
2185000-03S	Louisa Lake	N	Y	Residential	Emerg

- The system is accurately reporting land use activities in Section G of its 'Annual Statistical Report'.
- The system has not experienced any new threats or protection concerns within the last year. Ex. Beavers, new development.
- The system does have an updated Watershed Protection Plan on file at DEP. Systems that maintain and implement a DEP approved Watershed Protection Plan may qualify for additional log removal credit. Please contact Kathy Romero at the DEP Boston Office at 617-292-5727 for technical assistance in this process.
- The system has submitted the DEP "Form to Report Protocol for Awareness of New or Expanded Watershed Projects".
 - Per 310 CMR 22.20B, all public surface water suppliers must document to DEP by the end of calendar year 2001, on a DEP form, that they have established a protocol that provides them with the opportunity to review and comment on proposed new or expanded land uses or activities within the watershed.

SOURCE WATER ASSESSMENT PROGRAM (SWAP)

DEP is completing source water assessments of the susceptibility of drinking water supplies to contaminant threats in their water supply protection areas for all community water systems in Massachusetts, as required by the 1996 Safe Drinking Water Act Amendments. All assessments were completed in May 2003. The assessment is based on an examination of potential contamination sources derived from existing DEP databases, site inspections and other available information.

- The Department of Environmental Protection (DEP) has prepared a Source Water Assessment Program (SWAP) Report for the water supply source(s) serving this water system. The SWAP Report assesses the susceptibility of public water supplies.
- A susceptibility ranking of *high* was assigned to this system using the information collected during the assessment by the DEP.

The SWAP Report notes the key issues in the water supply protection area for each source. *Please refer to the 'Discussion' section of the SWAP Report.*

The report may contain commendations on the water system's existing source protection measures as well as recommendations on improving source protection. It is suggested that the system implement plans to

address SWAP recommendations. DEP staff are available to assist local official and water suppliers in updating assessments; improving water supply protection and developing educational programs. **Contact DEP Central Region SWAP Coordinator Josephine Yemoh-Ndi at 508-849-4030.**

WATER TREATMENT: 310 22.15 & Ch. 5 & 6 Guidelines & Policies

Milford Water Company currently **meets** the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

- The Milford Water Company does routinely submit chemical treatment report(s) to the Department each month. The report includes the name of the source, the name of the chemical, the amount added, the resulting concentration of the chemical in the water (if applicable), and the reason for adding the chemical to the water supply.
- The Milford Water Company does maintain copies of these chemical treatment reports on file for at least 5 years.
- The Milford Water Company does have a SOP for bulk chemical deliveries.

TREATMENT PLANT:

The Milford Water Company has the following active treatment plant information listed within Department records:

PLNT/SRCE ID	PLNT/SRCE NAME	PLNT AVAIL	PLANT CAPACITY(MGD)	TREATMENT CLASS
2185000-01T	DILLA ST. PUMP/TREATMENT STATION	ACTIVE	1.4	II-T
2185000-02T	GODFREY BROOK WATER TREATMENT STATION	ACTIVE	1.44	I-T

TREATMENT PROCESS:

The Milford Water Company has the following active treatment process information listed within Department records:

PLNT/SRCE ID	PLNT/SRCE NAME	Status	OBJECTIVE	PROCESS	CHEMICAL NAME
2185000-01T	Dilla St. Pump/Treatment Station	Active	Corrosion Control	Inhibitor, Bimetallic Phosphate	Zinc Orthophosphate
2185000-01T	Dilla St. Pump/Treatment Station	Active	Corrosion Control	Ph Adjustment	Potassium Hydroxide
2185000-01T	Dilla St. Pump/Treatment Station	Active	Disinfection	Gaseous Chlorination, Post	Chlorine
2185000-01T	Dilla St. Pump/Treatment Station	Active	Particulate Removal	Filtration, Diatomaceous Earth	
2185000-01T	Dilla St. Pump/Treatment Station	Active	Particulate Removal	Filtration, Slow Sand	
2185000-02T	Godfrey Brook Water Treatment Station	Active	Corrosion Control	Aeration, Packed Tower	CO2 REMOVAL
2185000-02T	Godfrey Brook Water Treatment Station	Active	Corrosion Control	Inhibitor, Bimetallic Phosphate	Zinc Orthophosphate
2185000-02T	Godfrey Brook Water Treatment Station	Active	Corrosion Control	Ph Adjustment	Potassium Hydroxide
2185000-02T	Godfrey Brook Water Treatment Station	Active	Disinfection	Gaseous Chlorination, Post	Chlorine
2185000-02T	Godfrey Brook Water Treatment Station	Active	Iron Removal	Aeration, Packed Tower	
2185000-02T	Godfrey Brook Water Treatment Station	Active	Taste / Odor Control	Aeration, Packed Tower	Remove Hydrogen Sulfide

DISTRIBUTION

Distribution Maintenance: 310 CMR 22.19 & Ch. 9 Guidelines & Policies

Milford Water Company currently **does not meet** the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

System maintenance is being performed on an as needed basis not following any formal written maintenance schedule.

- Milford Water Company currently maintains the 8,446 service connections.

- Water pressure at street level does meet the minimum 20-psi to all service connections. The Department recommends that the minimum working pressure in the distribution system should be 35 psi and the normal working pressure should be approximately 60 psi.

- The distribution system has service area(s) with the following operating pressure ranges:

Service Area (e.g. low, high)	Minimum Pressure (psig)	Maximum Pressure (psig)
Low	60	130
High	90	130

- The distribution system is approximately made up of the following pipe types:
 - 35.9 miles of lined cast iron
 - 23.6 miles of ductile iron
 - 1,606 feet of copper
 - 8,287 feet of steel
 - 5.5 miles of plastic (PVC, HDPE)
 - 38.7 miles of asbestos cement (AC)
 - 680 feet Other: Permastran
- The system does have a cleaning/relining program.
- List distribution system weaknesses or problems (e.g., excessive breaks, freezing, corrosion, river crossings): river crossing and on going infrastructure replacement.
- There are approximately 50 dead end sections.
- The system does flush dead ends annually.
- Milford Water Company has not filed a waiver for asbestos sampling in the distribution system, indicating that they **do** have asbestos cement (AC) or AC vinyl lined pipe in its distribution system.
- A review of Milford Water Company most recent asbestos data has shown little to no detected contaminants.
- The system does not have future plans to replace the AC vinyl lined areas and/or loop the dead ends within the distribution system. **This will be done when the opportunity arises.**
- Since the distribution system contains AC vinyl lined pipe, the Milford Water Company is required to test periodically for tetrachloroethylene (PCE) at 5 distribution system locations.
- A review of Milford Water Company most recent PCE data has shown little to no detected contaminants.
- Since the distribution system contains AC (lined or unlined) pipe, the Milford Water Company is required to test periodically for asbestos at 2 distribution system locations.
- Milford Water Company does have an adequate flushing program. The water system is flushed once a year. The Department generally recommends that the distribution system be flushed periodically, twice a year.
- Milford Water Company **does not** have an adequate leak detection program. The Department recommends that a full leak detection survey be conducted at minimum of every two years; identified leaks should be repaired as soon as possible. The amount of unaccounted for water for a well-run system should be below 10% of total water consumption, and should remain under 15% at all times. Systems with greater than 15% of unaccounted for water should conduct a full leak detection survey more frequently to minimize water loss due to leaks.
 - Last Date of Leak Detection Survey: 9/25/2002 .

PWSID	YEAR	UNACCOUNTED USE (MGY)	ANNUAL DEMAND (MGY)	% UNACCOUNTED
2185000	2003	252.187	1145.665	22
2185000	2002	167.97049	1053.02	15
2185000	2001	203.66775	1163.465	17
2185000	2000	162.88578	1128.625	14
2185000	1999	73.17376	1146.508	6
2185000	1998		1056.589	
2185000	1997	109.15138	1094.656	9

- Milford Water Company has submitted an updated water distribution map to DEP.

STORAGE: 310 CMR 22.04 & Ch. 8 Guidelines & Policies

Milford Water Company currently **does not meet** the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

Department records show the Milford Water Company has an active total water storage capacity of 1.37 million gallons. **The Bear Hill Storage Tank has been removed from service.**

The Milford Water Company has the following water storage tanks and capacities:

PWSID	Storage Tank Name	Location	Availability	Capacity (MG)	Installation Date	Material	Storage Type
2185000	Bear Hill Storage Tank	Bear Hill	Inactive	2.65	1/1/1991	Steel	Ground Level Storage Tank
2185000	Congress Street Storage Tank	Congress St	Active	1.1	1/1/1941	Steel	Ground Level Storage Tank
2185000	Highland Street Storage Tank	Highland St	Active	0.271	1/1/1964	Steel	Ground Level Storage Tank

- All tank vents and overflow pipes are not up to code and/or properly screened.
- All sewers, drains, standing water are kept at least 50 feet from tank.
- The storage tanks are adequately protected against vandalism.
- The tanks are fenced for security.
- The water level in the storage tank is controlled by pressure switches.
- The storage tanks cannot be isolated from the distribution system for repair or cleaning without interruption of service.
- The primary purpose of the tank is to provide water storage, pressure.
- All water storage tanks are covered and locked so as to adequately protect the water from contamination.
- The storage tanks do not have nearby valve pits with injection ports to allow emergency disinfection.
- The storage tanks have sampling taps installed on them to allow monthly bacteria testing as required.
- The Milford Water Company currently does not routinely drain or inspect its water tanks. the Department recommends that all water storage tanks be drained, inspected and cleaned every 5 years.
 - The last time the tanks were inspected was: Congress St. Tank 1993, Highland St. Tank 1964, and Bear Hill Tank 1991.
 - Condition (structural integrity) of tanks: Adequate
 - The last time the tanks were cleaned was: Congress St. Tank 1993, Highland St. Tank 1964, and Bear Hill Tank 1991.

CROSS CONNECTION & BACKFLOW PREVENTION: 310 CMR 22.22

Milford Water Company currently **does not meet** the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

- The system does have an approved cross connection program plan on file.
- The system has had 100% of its distribution system surveyed for cross connections by a Massachusetts certified cross connection surveyor.
- The last cross connection survey was conducted: 2003.
- The system has not delegated its cross connection implementation plan to a 3rd party. **A third party is used to supplement Company Staff.**
- The following individual is listed at the Cross Connection Control Coordinator for the system: Henry Papuga.
- The following Massachusetts certified Cross Connection Control Surveyor approves design plans and performs surveys for the system: Russell Tierney license #31476.
- The system does review and approves design data sheets and plans for proposed new installations of reduced pressure backflow preventers (RPBPs), double check valve assemblies (DCVAs), and air gap separations with tank and pump arrangements in accordance with 310 CMR 22.24(4)(b).
- The system does ensure, upon completion of installation, that backflow prevention devices are installed according to the approved design data sheets and plans and are tested for proper operation in accordance with 310 CMR 22.22(4)(b).
- **Hose bibs have not been installed on all outdoor faucets of PWS owned facilities to minimize contamination due to backflows.**
- The system has installed all required back flow prevention devices as described within the cross connection survey report, including PWS owned facilities.
- The system does annually report its cross connection activities of the previous year within its 'Annual Statistical Report'. These activities include:
 - A list of all cross connections protected by an approved double check valve assembly or approved reduced pressure backflow preventer devices;
 - The numbers and types of facilities surveyed yearly; and
 - The number type and location of violations found.
- The system does routinely tests all installed back flow prevention devices as described within the cross connection survey report.
 - double check valve assemblies (DCVA) once per year
 - reduced pressure backflow prevention devices (RPBPD) twice per year
- The system has notified all device owners of their responsibilities relative to cross connection control.
- The system does annually notify consumers of water and local public officials of the requirements of the distribution system cross connection control program. The Consumer Confidence Report could be used as a means to notify and educate water users.
- The system has established and maintained an active cross connection control program for residential users, as required, which includes an educational component. The Consumer Confidence Report could be used as a means to educate users.

EMERGENCY POWER: 310 CMR 22.04 & Ch. 2 Guidelines & Policies

Milford Water Company currently **does not meet** the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

- Power is supplied by the local utility and is very reliable.
- Power outages over the last ten years have been few and very short in duration.
- **During a power outage Milford Water Company does not have an emergency backup power supply to operate all components of the water system, nor is the system able to provide water storage equal to its maximum daily demand for up to 24 hours. The Dilla St. Pump Station is equipped with two diesel powered pumps capable of pump 1600 and 900 GPM. These pumps draw water from the chlorine contact chamber.**

EMERGENCY PLANNING: 310 CMR 22.15

Milford Water Company currently **meets** the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

- Milford Water Company has completed and submitted a copy of the updated Emergency Response Plan Directory in its 'Annual Statistical Report' containing names and phone numbers of contacts should a water emergency occur. Any future changes to the information should be submitted each year with the annual statistics report.

Emergency Disinfection:

- Milford Water Company currently utilizes disinfection at all of its sources.

Water Use Restrictions: 310 CMR 22.15(8) & 310 CMR 36.00

- Milford Water Company has adopted its own water conservation restriction by-law/ ordinance in order to enact and enforce mandatory conservation restrictions.
 - The implementation of mandatory measures requires notification to the Department within 48 hours of its imposition and within 48 hours of its termination. This form may also be used to report the implementation of voluntary water restrictions. Refer to DEP Water Use Restriction Survey notification form at <http://www.state.ma.us/dep/brp/wtrm/wtrmpubs.htm>
 - The implementation of any water restrictions during the calendar year must be reported each year on the annual statistics report.
 - The Department recommends that all public water systems plan for, adopt and implement water conservation measures to better manage and reduce water demand. Contact the Department for information and guidance on water conservation and drought contingency planning. The following websites also contain some helpful information:
 - **Water Conservation Plan for Public Water Suppliers.**
<http://www.state.ma.us/dep/brp/wtrm/wtrmpubs.htm> Water Resource Commission / DEM format for a water conservation plan. It is a component of DEP Site Screening and Request for Site Exam permits. This form is also used in Water Management Act reviews, applications and submittals.
 - **Drought Triggers for Reservoir Sources:** Monitor and record reservoir storage levels and available storage capacity.

- www.dep.state.pa.us/dep/subject/hotopics/drought/emergrules/DT_SW.htm
- **Drought Triggers for Well Sources:** Monitor and record static groundwater levels and groundwater pumping levels or well yields of the key well or well in each wellfield. www.dep.state.pa.us/dep/subject/hotopics/drought/emergrules/DT_GW.htm
- **Drought Triggers for Streams, Rivers or Springs:** Monitor and record stream flow levels. www.dep.state.pa.us/dep/subject/hotopics/drought/emergrules/DT_ROS.htm
- **Tips for Saving Water Indoors and Outdoors** can be found at www.state.ma.us/dep/hrp/wtrm/files/fsusers.pdf
- **Conservation Tips for Community Water Suppliers** can be found at www.state.ma.us/dep/hrp/wtrm/files/fssuppl.pdf

Security/Emergency Response Plan:

The Department requires each public water supplier to develop its own Emergency Response Plan. To assist water supply personnel in providing safe and continuous service, the DEP has prepared a handbook <http://www.state.ma.us/dep/hrp/dws/files/emerdhbk.doc> for water supply emergencies that focuses on the basic procedures for handling such situations. This document will help public water suppliers assess the vulnerability of their systems and their preparedness in confronting unexpected circumstances. Please contact Paul Niman at 617-556-1166 on questions regarding DEP recommendations for security or emergency preparedness.

Examples of a water emergency would be loss of source(s) (either due to lack of water or contamination), pump failure, power failure, treatment failure, storage tank failure, or water main break.

Examples of a water emergency would be loss of source(s) (either due to lack of water or contamination), pump failure, power failure, treatment failure, storage tank failure, or water main break.

Additional information on security measures and emergency preparedness can be found at the following websites:

- Association of State Drinking Water Administrators & NRWA: Security Vulnerability Self-Assessment Guide for Small Drinking Water Systems, May 30, 2002
http://www.asdwa.org/mem_info/committees/cipinfo/6-02/5-31%20draft%20latestv3.pdf
- EPA Water Infrastructure Security: What is Being Done to Protect the Nation's Water Infrastructure?
<http://www.epa.gov/safewater/security/>
- EPA Guidance for Water Utility Response, Recovery & Remediation Actions for Man-made and/or Technological Emergencies <http://www.epa.gov/safewater/security/er-guidance.pdf>
- EPA Alert on Chemical Accident Prevention & Site Security: <http://www.epa.gov/ceppo/pubs/secale.pdf>
- U.S. Centers for Disease Control & Prevention: Public Health Emergency Preparedness & Response
<http://www.bt.cdc.gov>
- Association of Metropolitan Water Agencies: <http://www.amwa.net/isac/amwacip.html>
- American Water Works Association: <http://awwa.org>
- National League of Cities: <http://www.nlc.org>

WATER QUANTITY: 310 CMR 22.04 & 22.21

Milford Water Company currently **meets** the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

Milford Water Company pumped the following total volume of water from its sources during the time periods below (information provided by annual metered withdrawal recordings submitted to DEP):

PWSID	YEAR	POP_SUMMER	POP_WINTER	UNACCOUNTED USE (MGY)	ANNUAL DEMAND (MGY)	% UNACCOUNTED
2185000	2003	27100	27100	252.187	1145.665	22.01228
2185000	2002	27100	27100	167.970	1053.02	15.9513
2185000	2001	27100	27100	203.668	1163.465	17.5052
2185000	2000	27100	27100	162.886	1128.625	14.4322
2185000	1999	27100	27100	73.174	1146.508	6.3823
2185000	1998	27000	27000		1056.589	
2185000	1997	27000	27000	109.151	1094.656	9.9713

- Milford Water Company currently does not maintain it's unaccounted for water use below the recommended 15%.
- Milford Water Company does have Department approved pumping rates (based upon either DEP approved pumping tests or DEP approved Zone II rates) for all of its groundwater sources of supply.
- Milford Water Company sources withdrew the following average volumes of water during the last calendar year reported from active sources of supply. (Information provided by annual metered withdrawal recordings in MG units of measure, then averaged over 365 days). The results may generally be compared to the Approved Volume in (MGD) for groundwater sources or the Surface Water Safe Yield (MGD) for surface water sources. However this table does not include maximum day use information from each source. Refer to individual annual statistical reports to determine if maximum day withdrawals are within new source approval permitted volumes.

SOURCE ID	Source Name	Groundwater_Approved Volume(MGD)	Surface_Water Safe_Yield(MGD)	Gallons Produced (MGY)	Last Year Average (MGD)
2185000-01G	Dilla St. TWF	0.675	0	0	0
2185000-01S	Charles River	0	0	173.4252	0.47514
2185000-02G	Clarks Island TWF	0.801	0	101.3543	0.2777
2185000-02S	Echo Lake	0	0	644.518	1.766
2185000-03G	Godfrey Well # 1	0.79	0	79.2173	0.2170
2185000-04G	Godfrey Well # 2	0.79	0	79.2173	0.2170
2185000-05G	Godfrey Well # 4	0.79	0	79.2173	0.2170

- Milford Water Company is capable of producing the same volumes and quality of water as the system's primary well or wellfield at all times by:
 - additional wells and pumping equipment; or
 - an interconnection with another public water system that can adequately provide the quantity and quality of needed water.
- Milford Water Company has implemented voluntary water bans within the last two years.
- Milford Water Company has implemented mandatory water bans or conservation restrictions within the last two years.
- Milford Water Company has experienced water quantity problems: MWC declared a drought emergency in 2002.

WATER MANAGEMENT ACT (WMA): 310 CMR 36.00

Milford Water Company currently **meets** the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

The following Milford Water Company sources are listed as having a WMA registration and/or WMA permit

CODE	ID NUM	TYPE	NAME	REGISTERED	PERMITTED
2185000-06G	04	G	CEDAR SWAMP WELL	No	Y
2185000-03G	03	G	GODFREY BROOK WELL FIELD	Y	Y
2185000-02S	01	S	ECHO LAKE	Y	Y
2185000-01S	02	S	CHARLES RIVER	Y	Y
2185000-01G	01	G	DILLA STREET WELL FIELD	Y	Y
2185000-02G	02	G	CLARK'S ISLAND WELL FIELD	Y	Y

Milford Water Company has a WMA registration for water withdrawals exceeding 100,000 gallons per day. WMA registrations are renewable every 10 years. It is the responsibility of the water supplier to renew their WMA registration.

- Milford Water Company maintains the following WMA registration:

PWSID	REG NUM	Basin Name	REG DAYS	REG VOL(MGD)	REG VOL(MGY)	REG GWPOINTS	REG SWPOINTS
2185000	22018501	CHARLES	365	2.88	1051.2	3	2

- Milford Water Company is registered to withdraw a total of 2.88 MG per year from the Charles River Basin.

Milford Water Company does maintain a WMA permit for water withdrawals exceeding 100,000 gallons per day. WMA permits cover a 20-year period according to the river basin schedule and are reviewed by the Department every 5 years.

- Milford Water Company maintains the following WMA permit:

PWSID	PERMIT NUM	Basin Name	PERM DAYS	PERM GWPTS	PERM SWPTS	PERM START DATE	PERM END DATE
2185000	9P22018501	CHARLES	365	4	2	12/21/1990	2/28/2009

- WMA Withdrawal Compliance Determination Table (includes 0.10 MG threshold):

PWSID	Basin Name	Year 1	MGD YR 1-5	Year 6	MGD YR 6-10	Year 11	MGD YR 11-15	Year 16	MGD YR 16-20
2185000	CHARLES	1/1/1989	4.2	1/1/1994	5.12	1/1/1999	5.42	1/2/2004	5.42

- Milford Water Company is operating within its maximum authorized withdrawal volume of 5.42 MGD (registration volume + permitted volume + 0.1 MGD) listed above for the Charles Basin as reported in its most recent annual statistics report.

Please note that this review does not include an evaluation of compliance with all the conditions of your WMA permit. Permit conditions can often be source or system specific. The water supplier is responsible for ensuring compliance with all provisions of its WMA registration and permit.

METERS: 310 CMR 22.04

Milford Water Company currently meets the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

As of December 31, 2001 all water systems must install meters at locations sufficient to record each system's total production of water from all sources, including water purchased from and/or sold to other public water systems (310 CMR 22.04(6)).

The Department recommends that source meters be calibrated on an annual basis. Most Water Management

permits require this. Meter readings for each source must be recorded at the end of each month. However, if the system adds chemicals to the supply, daily meter readings are required (on monthly chemical treatment report). Monthly water withdrawal information for each calendar year must be reported to the Department within the Milford Water Company's "Annual Statistical Report".

According to information provided to the Department, the Milford Water Company's system, both supply and distribution system, is currently 100 percent metered.

For source meters:

- There are no water meters currently installed at the source(s). Rather, a master meter located within the pumphouse measures the total water withdrawal from the manifolded sources. These meters were last calibrated approximately 2 years ago. The Department recommends that master meters be calibrated annually

For service connection meters:

- The Milford Water Company currently does operate a meter replacement program for service connection meters. The Department recommends that service connection meters be replaced over a 10-year period.

WATER QUALITY

GENERAL

Milford Water Company currently **meets** the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

- The system does maintain a complaint tracking log. The Department recommends that all systems maintain such a log.
- The system has experienced water quality problems or complaints during the past year.
- The system has investigated the cause of the problems or complaints.
 - List corrective actions taken: flush mains

TOTAL COLIFORM RULE: 310 CMR 22.05

Milford Water Company currently **meets** the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

- Bacteria sample results are required to be submitted to the DEP by the 10th day of the following month. Milford Water Company is required to sample for total coliform bacteria at the following frequency:

PWSID	Number of Samples	SAMPLE FREQ
2185000	43	MONTH

- The system does have an approved Total Coliform Sampling Plan.
- The system is reporting coliform sampling location codes or sample types accurately on its DEP report form submittals.
- The Total Coliform Sampling Plan does not have to be updated.
- If a system collects more than one routine sample per month, no fewer than three (3) repeat samples must be collected for each total coliform-positive sample found. The Total Coliform Sampling Plan reflects RS, UR and DR sites for each sample location.

- Atmospheric storage tanks must be included as routine sample (RS) sites in the Total Coliform Sampling Plan and sampled a minimum of once per month.
- As part of its Total Coliform Sampling Plan the system has submitted a map of its distribution system, which shows the locations of the bacteria sampling sites, wells, and storage tanks.

LEAD & COPPER RULE: 310 CMR 22.06B

Milford Water Company currently **meets** the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

- Lead and Copper sample results are required to be submitted to the DEP by the 10th day of the following month. Milford Water Company is required to sample for Lead and Copper at the following frequency:

PWSID	NO LCR SAMPLES	LCR SAMPLE FREQ
2185000	30	YEAR

- **The system does have an approved Lead and Copper Sampling Plan. This plan will need to be updated to reflect revised Department lead and copper rule sampling plan policy.**
 - The next lead and copper sample round is scheduled to be collected during the third quarter, July-September 2006.
- The Milford Water Company is currently within the 90th percentile (0.015 ppm) lead action level.
- The Milford Water Company is currently within the 90th percentile (1.3 ppm) copper action level.

SURFACE WATER TREATMENT RULE: 310 CMR 22.20A

Milford Water Company currently **meets** the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

310 CMR 22.20A establishes criteria under which filtration is required as a treatment technique for public water systems supplied by surface water sources and ground water sources under the direct influence of surface water.

- The Milford Water Company is in compliance with the treatment technique requirements of the SWTR.
 - The system has installed filtration by the date specified.
 - The system is submitting appropriate SWTR compliance forms on a monthly basis to DEP. Compliance forms are required to be submitted to the DEP by the 10th day of the following month.
 - Prior Department review has shown deficiencies in information provided on the reports, however, the Department has been working with MWC to improve reporting.
 - The system must update its monthly disinfection contact time (CT) information (units of measure, and correct CT log chart).
 - The system is in compliance with the distribution system disinfection requirements of the SWTR (DEP SWTR Form D). According to 22.20A(3)(b)(3) the residual disinfectant concentration in the distribution system, measured as total chlorine, combined chlorine, or chlorine dioxide, cannot be undetectable in more than 5% of the samples each month, for any two consecutive months that the system serves water to the public. Water in the distribution system with a heterotrophic bacteria concentration less than or equal to 500/ml,

- measured as heterotrophic plate count (HPC) is deemed to have a detectable disinfectant residual for purposes of determining compliance with this requirement.
- For systems using slow sand filtration or diatomaceous earth filtration, the turbidity level of representative samples of a system's filtered water must be less than or equal to 1 NTU in at least 95% of the measurements taken each month. And at no time can the turbidity exceed 5 NTU for these systems. A review of the turbidity information submitted over the past 12-months shows that the system is in compliance with this requirement.
- For systems serving >3,300 persons, daily residual disinfectant concentrations are monitored continuously at the entry point to the distribution system.
- The daily disinfectant residual entering the distribution system must not fall below 0.2 mg/l of free chlorine for greater than 4 hours. If at any time the residual fall below 0.2 mg/l in the water entering the distribution system, the system must notify DEP no later than the next business day. A review of this information submitted over the past 12-months shows that the system is in compliance with this requirement.

INTERIM ENHANCED SURFACE WATER TREATMENT RULE: 310 CMR 22.20D

Milford Water Company currently **meets** the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

310 CMR 22.20D establishes requirements for filtration and disinfection that are in addition to criteria established under 310 CMR 22.20A. The requirements of 310 CMR 22.20D apply to **all public water systems using surface water or ground water under the direct influence of surface water and serve at least 10,000 people**. 310 CMR 22.20D establishes or extends treatment technique requirements in lieu of maximum contaminant levels for the following contaminants: *Giardia lamblia*, *Viruses*, *Heterotrophic plate count bacteria*, *Legionella*, *Cryptosporidium*, and *Turbidity*.

- Milford Water Company is in compliance with the disinfection profiling and benchmark requirements under the provisions of 310 CMR 22.20D(3).

SURFACE WATER TREATMENT RULE-Ground Water Systems: 310 CMR 22.20A

Milford Water Company currently **meets** the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

- The following ground water sources of Milford Water Company are subject to 310 CMR 22.20A, the SWTR. Each source must be evaluated by the DEP to determine if it is "under the influence of surface water".

SOURCE ID	Source Name	Status	Avail	Type	Pollution_Sources	Exempt	Criteria	Mpa_Test Required?	Setback	Comments
2185000-01G	Dilla St. TWF	A	ACTIVE	SGWNP	Road, Stream, Surface Drain, Sanitary Sewer, Resid., Etc.	Non-Exempt	N/A	NO	N/A	Currently filtered
2185000-02G	Clarks Island TWF	A	ACTIVE	SGWNP	Stream, Sanitary Sewer	Non-Exempt	N/A	NO	N/A	Currently filtered
2185000-03G	Godfrey Well # 1	A	ACTIVE	SGWNP	Stream	Exempt	1	NO	160'	
2185000-04G	Godfrey Well # 2	A	ACTIVE	SGWNP	Stream, Part Residential	Exempt	1	NO	160'	
2185000-05G	Godfrey Well # 4	A	ACTIVE	SGWNP	Stream	Exempt	1	NO	160'	
2185000-06G	Cedar Swamp GDW	A	EMERG	SGWNP	Commercial Property Development, Landfill-Zoneii	Non-Exempt	E			

- Some sources may have been previously exempt from the SWTR as they meet one or more of the following criteria:

1. The source meets the "setback" criteria. The sand and gravel source is located 150 feet or more horizontally from a surface water feature. A surface water feature is defined as an area continuously inundated with flowing or standing water.
2. The source meets the confining layer criteria. The source was constructed with a sanitary seal, and the screens are separated from surface water features by a confining layer.
3. Well Construction, pumping, history and water quality criteria (gravel pack sources only).
4. The source meets the setback criteria. The bedrock source is located 200 feet or more horizontally from a surface water feature.
- M. Microscopic Particulate Analysis (MPA) testing was conducted on the source and was determined to be a LOW risk.
- E. The source has been designated an emergency status. Emergency sources must receive DEP approval prior to being placed on-line.

Please be aware that the status of each exempt source may be re-evaluated by the DEP during a sanitary survey or other inspection. Further testing or analysis may be required by DEP on a case-by-case basis pending changes in local conditions including: water quality, setbacks, encroachment of surface water, flooding, wellhead integrity, etc.

- o Milford Water Company's sources have been re-evaluated by the Department. The Department has determined: That conditions at the sources listed below do not meet the exemption criteria. Therefore, MPA sampling must be conducted on the raw water (untreated source water) of each of the following sources during a minimum of two seasons: once during August 15th - October 15th (Fall) and again between April 1st - May 30th (Spring).
- List Source ID#s: 2185000-01G, 2185000-02G

DISINFECTION BY-PRODUCT RULE (DBP): 310 CMR 22.07E

Milford Water Company currently **meets** the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

Pursuant to 310 CMR 22.07E, the DBP rule is applicable to community systems and non-transient community water systems, which add a chemical disinfectant (oxidant) to the water in any part of the drinking water process.

The DBP Rule establishes Maximum Contaminant Levels for Bromate (plants that use ozone) and Chlorite (plants that use chlorine dioxide). It also establishes Maximum Residual Disinfectant Levels (MRDLs) for chlorine, chloramines and chlorine dioxide. In addition, the Disinfection By-Products Rule has many daily/monthly monitoring and reporting requirements for disinfectant residuals such as chlorine dioxide, chlorite, chloramines, chlorine, and bromate.

TTHM & HAA5

- The system has submitted a DBP monitoring plan by January 30, 2004.
- The system is required to conduct TTHM and HAA5 routine monitoring at 5 distribution sample sites each quarter.
- The system is not on reduced monitoring for TTHM and HAA5.
- A review of Milford Water Company running annual average for total trihalomethanes, computed quarterly, of quarterly arithmetic averages for the last 12-months is below the 0.08 mg/l MCL.

- A review of Milford Water Company running annual average for haloacetic acids, computed quarterly, of quarterly arithmetic averages for the last 12-months is below the 0.06 mg/l MCL.

CHLORINE/CHLORAMINES

- The system is measuring and reporting each month the residual disinfection level in the distribution system at the same point in the distribution system and at the same time as total coliforms are sampled.
- The system is submitting completed Chlorine/Chloramines Report to the Department on a monthly basis. A disinfectant level is reported for each coliform sample collected in the distribution system. The sites reflect those of the approved coliform sampling plan.
- A review of Milford Water Company running annual average for chlorine/chloramines, computed quarterly, of monthly averages of all samples for the last 12-months is below the 4.0 mg/l MRDL.

INORGANICS (IOCs) including Nitrate & Nitrite: 310 CMR 22.06

Milford Water Company currently **meets** the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

Pursuant to 310 CMR 22.06 Inorganics, groundwater systems are required to sample for inorganics every three years, unless the granting of an IOC waiver has reduced sampling. Surface water supplies are required to sample for inorganics every year, unless the granting of an IOC waiver has reduced sampling.

Pursuant to 310 CMR 22.06(7) Nitrate, all systems are required to sample for nitrate annually. The repeat monitoring frequency is quarterly for at least one year following any one sample in which the concentration is $\geq 50\%$ the MCL.

Pursuant to 310 CMR 22.06(8) Nitrite, all systems are required to sample for nitrite every three years. The repeat monitoring frequency is quarterly for at least one year following any one sample in which the concentration is $\geq 50\%$ the MCL.

- A review of Milford Water Company most recent inorganics, nitrate and nitrite data has shown little to no detected contaminants.

RADIONUCLIDE RULE: 310 CMR 22.09A

Milford Water Company currently **meets** the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

Pursuant to 310 CMR 22.09A the revised Radionuclide Rule, all community water systems are required to conduct initial monitoring for radionuclides by December 31, 2007. Based on the results, the Department may allow systems to reduce the future frequency of monitoring from once every three years to once every six or nine years. Compliance with initial monitoring requirements are based on:

- the average of four consecutive quarters of baseline sampling conducted between 2004 – 2007 at each entry point (after any treatment) to the distribution system, or
- the availability of *grandfathered data* - gross alpha and radium 228 data collected between June 1, 2000 and December 8, 2003 at each entry point (after any treatment) to the distribution system.

Compliance with gross alpha, radium 226/228 combined, and gross beta MCLs are currently evaluated by the DEP. The revised rule also sets an MCL for uranium at 30 ug/l. Uranium is required to be tested if gross alpha results exceed 15 pCi/l.

The DEP Office of Research and Standards (ORS) has established a guideline for radon at 10,000 pCi/l. Radon is currently optional or may be required to be tested by the DEP on a case-by-case basis. In those instances where radon levels have exceeded the guideline, the DEP in conjunction with ORS will make an evaluation to determine any necessary correction action measures.

- A review of Milford Water Company most recent radionuclide data has shown little to no detected contaminants.

SYNTHETIC ORGANIC CONTAMINANTS (SOCs): 310 CMR 22.07A

Milford Water Company currently **meets** the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

Pursuant to 310 CMR 22.07A Synthetic Organics, systems serving less than or equal to 3300 persons are required to sample for synthetic organic contaminants every three years, unless sampling has been reduced by the granting of a SOC waiver. Systems serving 3300 or more persons are required to sample for synthetic organic contaminants twice within the same year during every three-year compliance period, unless the granting of an SOC waiver has reduced sampling.

- A review of Milford Water Company most recent synthetics data has shown little to no detected contaminants.

VOLATILE ORGANIC CONTAMINANTS (VOCs): 310 CMR 22.07B

Milford Water Company currently **meets** the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

Pursuant to 310 CMR 22.07B Volatile Organics, community and non-transient non-community water systems are required to initially sample for volatile organic contaminants (including MTBE) four consecutive quarterly samples for each source, during the initial compliance period. If results are acceptable, systems may then collect one sample annually for each source, unless the granting of a VOC waiver has further reduced sampling. In no circumstances shall a system collect VOC samples less than once every three years.

- A review of Milford Water Company most recent volatile organics data has shown little to no detected contaminants.

SECONDARY CONTAMINANTS: 22.07D

Milford Water Company currently **meets** the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

Pursuant to 310 CMR 22.07D Secondary Chemical Standards, secondary maximum contaminant levels (SMCLs) are applicable to all public water systems.

Secondary contaminant monitoring is currently optional or may be required to be tested by the DEP on a case-by-case basis. In those instances where contaminant levels have exceeded established guidelines or SMCLs, the DEP in conjunction with ORS will make an evaluation to determine any necessary correction action measures.

- Milford Water Company is required to routinely monitor for iron, manganese, due to:
 - monitoring of a treatment process.

MONITORING DATA: 310 CMR 22.15

The system **does not** have unaddressed water quality data that has been previously rejected by the DEP.

Systems are required to submit responses to all rejected monitoring data within 30 days. Failure to correct and resubmit monitoring information may result in enforcement action by the Department.

WATER QUALITY VIOLATIONS:

Milford Water Company has incurred the following water quality / monitoring violations:

PWSID	Act Type Descrp	Group	Chemical Name	Period Start	Period End	Comment
2185000	Follow-Up And Routine Tap Sampling (LCR)	LCR	Lead And Copper Rule	1/1/1999	6/30/1999	60 TAPS
2185000	Follow-Up And Routine Tap Sampling (LCR)	LCR	Lead And Copper Rule	7/1/1998	12/31/1998	60 TAPS
2185000	Follow-Up And Routine Tap Sampling (LCRr)	LCR	Lead And Copper Rule	1/1/1998	6/30/1998	60 TAPS
2185000	Minor Repeat M/R (TCR)	BACT	Total Coliform	7/1/1996	7/17/1996	NON-CE-96-5001
2185000	Monthly Mcl (TCR)	BACT	Total Coliform	7/1/1996	7/31/1996	NON-CE-96-5001/RTC
2185000	Follow-Up And Routine Tap Sampling (LCRr)	LCR	Lead And Copper Rule	1/1/1996	6/30/1996	NON-CE-97-5169
2185000	Monthly Mcl (TCR)	BACT	Total Coliform	7/1/1995	7/31/1995	NON-CE-95-5023 / RTC-CE-95-5023
2185000	MONITORING, REGULAR	Nitrat	Nitrate	10/1/1993	12/31/1993	NON-CE-93-5376
2185000	MONITORING, REGULAR	Nitrat	Nitrate	7/1/1993	9/30/1993	NON-CE-93-5273
2185000	MONITORING, REGULAR	Nitrat	Nitrate	4/1/1993	6/30/1993	NON-CE-93-5143
2185000	MONITORING, REGULAR	INORG		1/1/1993	3/31/1993	
2185000	MONITORING, REGULAR	THM		1/1/1993	3/31/1993	
2185000	MONITORING, REGULAR	VOC		1/1/1993	3/31/1993	
2185000	MONITORING, REGULAR	NITRIT		1/1/1993	3/31/1993	
2185000	MONITORING, REGULAR	NITRAT		1/1/1993	3/31/1993	

CONSUMER CONFIDENCE REPORT (CCR): 310 CMR 22.16A

Milford Water Company currently **meets** the requirements of the regulations of the Drinking Water Program, guidelines and policies for this section.

Community water systems must provide to its consumers an annual report, which includes information on the water, delivered by the system for the previous calendar year and characterizes the risk (if any) from exposure to contaminants in the drinking water in an accurate and understandable manner. The report is to include water system information, source information, source protection information, required health effects statements, definition of terms, detected contaminants in finished water, compliance with drinking water regulations, and required educational information.

Specifically, each report must contain relevant information to provide customers with an accurate picture of the level of contaminants they may have been exposed to during the year. The information must be derived from data collected to comply with the EPA and State monitoring and analytical requirements. Where a system is allowed to monitor for certain contaminants less often than once a year, the report must include the results and date of the most recent sampling and a brief explanation.

Community water systems must deliver the report to its consumers, the DEP and all other appropriate authorities by July 1st of each year.

Please refer to the DEP website and the following documents for technical assistance, or you may contact Elizabeth Kotowski of the DEP Central Region at 508-767-2779.

- Recommended Tips For Preparing User Friendly Consumer Confidence Reports is available for mailing from your DEP Regional Office.
- Appendix to Recommended Tips For Preparing User Friendly Consumer Confidence Reports available at <http://www.state.ma.us/dep/hrp/dws/ccr.htm>

OUTSTANDING INSPECTION ACTIONS

Milford Water Company currently does not have prior outstanding inspection actions that must be addressed.

OUTSTANDING ENFORCEMENT ACTIONS

Milford Water Company currently has prior outstanding enforcement actions that must be addressed.

- Continued failure to comply with the required actions listed below may result in further enforcement action. Refer to DEP Enforcement Policy section of this report.

PWSID	ENF ISSUED	ENF COMPLETE	ENF TYPE	ENF#	ENF COMMENTS	ACTION DEADLINE	ACTION COMPLETE	MILESTONE ACTION
2185000	6/10/2004		FEDAO	0432	UCMR M/R	7/10/2004		REPORT COMPLETED MONITORING
2185000	6/10/2004		FEDAO	0432	UCMR M/R	7/10/2004		SCHEDULE UNCOMPLETED MONITORING
2185000	6/10/2004		FEDAO	0432	UCMR M/R	7/15/2005		COMPLETE ALL MONITORING

CAPACITY DETERMINATION: 310 CMR 22.04 & Ch. 11 Guidelines & Policies

Capacity is the ability of a public water system to plan for, achieve, and maintain financial, managerial and technical compliance with applicable federal and state drinking water standards for the foreseeable future. Capacity also requires the demonstration of effective controls in all three areas.

The Milford Water Company is determined to have **conditional capacity**. Systems with conditional capacity currently meet MA DEP drinking water regulations but have issues that need to be improved. Please refer to the attached Compliance Plan(s) for the specific items and the required completion date(s). Please note failure to address these items as required may result in your system ineligibility to receive SRF funding.

UNDERGROUND INJECTION CONTROL (UIC)

UIC Referrals: Within a Zone 1 or Zone II/ IWPA, industrial facilities managing hazardous materials (e.g., auto repair garage, dry cleaner, machine shop, furniture stripping, etc.) should be referred to the UIC Program for a possible inspection. UIC inspectors will address unauthorized discharges to the ground (e.g., via a floor drain leading to a dry well or septic system) in such facilities. The threat may be less in sewered areas as determined on a case-by-case basis. Contact Kurt Jacobson at 508-767-2731 or Ken Pelletier at 617-348-4014.

MONITORING WAIVERS

The Department of Environmental Protection (DEP) is offering the opportunity for monitoring waivers to public water suppliers (PWSs) for the current compliance period. For PWSs that meet the source protection requirements and have had clean monitoring results, waivers can provide significant cost savings by reducing or eliminating routine monitoring for certain contaminants. Monitoring Waivers are being offered for Volatile Organic Compounds (VOC), Synthetic Organic Chemicals (SOC) and Inorganic Chemicals (IOC).

Monitoring waiver applications are available on the DEP website at <http://www.state.ma.us/dep/brp/dws/dwspubs.htm>. If you need technical assistance please contact DEP's Training Consortium Partners: New England Water Works Association (NEWWA), Massachusetts Water Works Association, RHI -The Northeast Rural Community Assistance Program (RCAP) and Northeast Rural Water Association (NeRWA) via Marie Tennant of the Drinking Water Program at Marie.Tennant@state.ma.us (617) 292-5885.

FUTURE REGULATORY REQUIREMENTS

RADON

Although the development by the Environmental Protection Agency of the final Radon Rule has been delayed beyond the court-ordered deadline of April 30, 1995, completion of the Rule may be part of the re-authorization of the Safe Drinking Water Act. Preliminary indications are that the Rule may establish a new radon MCL for community public water systems as low as 300 pCi/L, with an alternative MCL of 4,000 pCi/L if the State develops a multimedia mitigation (MMM) program to mitigate overall radon levels in indoor air. These potential levels are a dramatic reduction from the current Massachusetts guideline of 10,000 pCi/L.

RADIONUCLIDES RULE

This rule applies to community water systems of all sizes and goes into effect on December 8, 2003. This rule retains the existing MCLs for combined radium-226 and radium-228, gross alpha particle radioactivity, and beta particle and photon activity. The rule regulates uranium for the first time, and has specified an MCL of 30 ug/L. Unlike the existing rule, all entry points to the distribution system will now be tested. The rule specifies that initial monitoring will take place between 2004 and 2007.

ARSENIC

On October 31, 2001 the EPA finalized a regulation to reduce the public health risks from long-term chronic exposure to arsenic in drinking water for community and non-transient non-community systems. The revised Maximum Contaminant Level (MCL) for arsenic has been lowered from 50 ppb to 10 ppb (0.01 mg/L). EPA will require compliance with this MCL by January 23, 2006. EPA has determined that inorganic arsenic is a human carcinogen based on evidence from studies of human populations. Guidance documents and treatment alternatives on arsenic can be found at <http://www.epa.gov/OGWDW/arsenic.html>

GROUNDWATER RULE

This rule was proposed by EPA on May 20, 2000 and was anticipated to be finalized by Spring 2004. As proposed, this rule will apply to all public ground water systems. The five major components of the rule include:

- Sanitary surveys are to be conducted by the Department as well as the identification of significant deficiencies.

- Hydrogeologic sensitivity assessments must be performed on undisinfected systems.
- Source water microbial monitoring must be conducted by systems that do not disinfect and draw from sensitive aquifers.
- Systems with significant deficiencies or positive microbial samples indicating fecal contamination must take corrective action.
- Systems that disinfect must conduct compliance monitoring to ensure 4-log removal/inactivation of viruses.

The Proposed Rule considers karst, gravel, or fractured bedrock "sensitive" to microbial contamination. Sources in sensitive aquifers are required to monitor for microbial contamination unless the State certifies that there is a barrier to fecal contamination. Systems that have detections of microbial contamination in source water or have significant deficiencies must implement corrective actions that include providing 4-log removal or inactivation of viruses. Systems that provide 4-log removal or inactivation of viruses must monitor their disinfection treatment once daily for small systems (<3,300 persons) or continuously for large systems. A complete explanation of the proposed rule is available on-line at <http://www.epa.gov/OGWDW/gwr.html>.

LONG TERM 1 ENHANCED SURFACE WATER TREATMENT RULE

The Long Term 1 Enhanced Surface Water Treatment Rule (LT1 ESWTR), 310 CMR 22.20F, establishes requirements for filtration and disinfection that are in addition to criteria under the SWTR, 310 CMR 22.20A. LT1 ESWTR establishes or extends treatment technique requirements in lieu of maximum contaminant levels for the following contaminants: *Giardia lamblia*, *Viruses*, *Heterotrophic plate count bacteria*, *Legionella*, *Cryptosporidium*, and Turbidity.

This rule applies to all public water systems that use surface water or ground water under the direct influence of surface water and serve less than 10,000 people and goes into effect January 14, 2005. This rule adds requirements for control of *Cryptosporidium* and sets a MCLG of zero for this pathogen. Systems must achieve at least a 2-log removal of *Cryptosporidium*, which is demonstrated by meeting new effluent turbidity limits specified below. Systems are still required to meet a 3-log removal/inactivation of *Giardia* and a 4-log removal/inactivation of viruses. The new turbidity requirements are stipulated as follows:

- Combined effluent performance requirements for plants using conventional filtration treatment or direct filtration:
- Combined filtered water effluent turbidity must be less than or equal to 0.3 NTU in at least 95% of the measurements taken each month, with measurements taken every four hours of operation.
- Combined filtered water effluent turbidity must not exceed 1.0 NTU at any time with measurements taken in four-hour intervals.
- Individual filter performance requirements for these systems:
- Individual filter effluent must be monitored continuously for turbidity.
- Any individual filter with a turbidity level greater than 1.0 NTU must be reported to the Department.
- Any individual filter with a turbidity level greater than 0.5 NTU at the end of the first four hours of filter operation (following backwash or when off-line filters are put on-line) must be reported to the Department.

Turbidity limits and monitoring requirements for slow sand systems will not change under this rule.

STAGE 2 MICROBIAL & DISINFECTION BY-PRODUCTS RULES

EPA indicates that the Stage 2 Disinfectants and Disinfection Byproduct Rule (Stage 2 DBPR) and Long Term 2 Enhanced Surface Water Treatment Rule (LT2 ESWTR) may be proposed sometime in 2003 and finalized in 2004. The Stage 2 DBPR is applicable to all community and non-transient, non-community water systems that treat their water with a chemical disinfectant. The LT2 ESWTR will be applicable to public water systems that use surface water or ground water under the direct influence of surface water. Under these rules, EPA is expected to propose the following:

- MCLs of 0.080 mg/L TTHM and 0.060 mg/L HAA5 based on an annual average of measurements at each compliance monitoring location.
- Performance of an initial distribution system evaluation for TTHM and HAA5 monitoring.
- Requirements for monitoring *Cryptosporidium*.
- Treatment technique requirements to mitigate *Cryptosporidium* risks.
- Reliance on ultraviolet disinfection (UV) as a technically feasible and available control technology, with EPA commitment to develop inactivation "CT" tables for UV systems.

FILTER BACKWASH RECYCLING RULE- 310 CMR 22.20E

This rule applies to all public water systems that use surface water or ground water under the direct influence of surface water, practice conventional or direct filtration, and recycle spent filter backwash, thickener supernatant, or liquids from dewatering processes. This rule goes into effect June 8, 2004. By December 8, 2003, applicable systems must submit recycle notification to the Department as specified in 310 CMR 22.20E(2)(a) and 310 CMR 22.20E(2)(b). The rule stipulates that all recycle flows must return through all processes of the system's treatment system (i.e., the headworks). If capital improvements are required to modify the recycle location to meet this requirement, all capital improvements shall be completed no later than June 8, 2006. Systems must apply to the Department if they want to recycle at an alternate location.

Record keeping requirements can be found in 310 CMR 22.20E(4). The system shall collect and retain on file recycle flow information specified in 310 CMR 22.20E(4)(a) through 310 CMR 22.20E(4)(f) for review and evaluation by the Department beginning June 8, 2004.

PUBLIC NOTIFICATION RULE

This rule applies to all public water systems and is currently in effect (310 CMR 22.16). The public notification requirements depend upon the nature of the violation which utilize the following tier system:

Tier 1. Violations where the water quality may pose an immediate health threat (e.g., fecal coliform/*E. coli*, chlorine dioxide). Consultation with DEP and public notification within 24 hours is required.

Tier 2. Other violations with potential for adverse effects on human health with long-term exposure (e.g., non-acute MCL, MRDL, treatment technique violations). Public notification is required within 30 days.

Tier 3. All violations not included in Tier 1 or 2 (e.g., failure to monitor/report results). Public notification is required within 12 months of the violation, and with DEP approval, may be part of the annual Consumer Confidence Report for community water systems.

Refer to the Drinking Water Regulations, 310 CMR 22.16, for specific content and distribution requirements. In general the public notice must provide a clear and readily understandable explanation of:

- the violation;

- when it occurred;
- any potential health effects;
- the population at risk;
- whether alternate water supplies should be used;
- preventative measures the consumer should take;
- steps the system is taking to correct the violation;
- when the system expects to return to compliance;
- who to contact for more information; and
- standard distribution language.

Public water systems must also submit a certification form to the Department within 10 days of issuing public notice. More detailed instructions, recommended templates, and the certification form, are available at the website: <http://www.state.ma.us/dep/hrp/dws/publnot.htm>

DRINKING WATER STATE REVOLVING FUND (SRF) PROGRAM

SRF LOANS

As a result of the 1996 amendments to the Safe Drinking Water Act (SDWA) DEP has made available money in the form of low interest loans for drinking water related projects.

In 1998 the Drinking Water State Revolving Loan Fund (DWSRF) began providing zero interest loans to qualified public water systems. As of 2002 these loans are available at a 2% interest rate. The funds will help finance the cost of infrastructure improvements needed to achieve or maintain compliance with the Safe Drinking Water Act. The DWSRF funds specific projects as well as program support. Applications for funding must be submitted to DEP by May of each year for eligibility. For more information contact Paul Anderson of the DEP Central Regional Office Drinking Water Program at 508-767-2802.

In addition to the DWSRF, state legislation has also established a separate pool of state funding for "grandfathered" projects bonded between 1992 and the passage of the legislation.

DEP Enforcement Policy:

A new DEP enforcement policy has been developed to enhance the fairness, consistency, predictability, deterrence value and efficiency of the DEP's enforcement process. It is important that you, as a Public Water Supplier, understand this policy and its potential impact.

In summary, this policy mandates that DEP take increasingly severe enforcement actions for violations such as:

- a) Failure to complete all of the items required within a Notice of Noncompliance.
- b) A repeat of a violation for which DEP has previously issued a Notice of Noncompliance.
- c) Failure to complete corrective actions **required** within a Comprehensive Compliance Evaluation or Sanitary Survey report.

The enforcement will, in most instances, take the form of a monetary penalty. In certain limited instances a monetary penalty may be avoided if the water supplier formally agrees to corrective actions through an Administrative Consent Order.

Additionally DEP will no longer be issuing verbal or written warning letters when violations are noted. All violations will result in a formal enforcement action.

Technical Assistance

DEP Central Region 508.792.7650
627 Main Street
Worcester, MA 01608

DEP Boston (Main Office) 617.292.5770
One Winter Street, 6th Floor
Boston, MA 02108

DEP Certified Operator Requirements
617.556.1191 or 617.292.5770
Contact for temporary certification, training, and training guidance.
<http://www.state.ma.us/reg/boards/dw/default.htm>

DEP Wall Experiment Station 978.682.5237

DEP Drinking Water Home Page
<http://www.state.ma.us/dep/hrp/dws/dwspubs.htm>
The program's home page includes links to a variety of other sites, including other DEP bureaus and state environmental agencies.

US Environmental Protection Agency (EPA)
Region 1-Source Water Protection 617.656.3616 or 617.565.4721 *Contact for New England resource protection issues, cross-state resource protection and national legislation.* <http://www.epa.gov>

DEP Comment Box
E-mail the Drinking Program with your suggestions or comment on rules or regulations by e-mail.
DWP.Comment@state.ma.us

Safe Drinking Water Act Hotline (EPA)
800.426.4791 (9AM – 5PM EST)
The Hotline's primary function is to assist the regulated community and the public with the regulations and programs developed in response to the Safe Drinking Water Act Amendments. Also contact for information on water quality, drinking water, technical publication, public education materials, and source protection planning.

DEP "In the Main" 617.292.5931
Newsletter published by the DEP-Drinking Water Program to inform PWS officials about new state and federal activities, regulations, training programs, and workshops.
<http://www.state.ma.us/dep/hrp/dws/files/itm.pdf>

Northeast Rural Water Association (NeRWA)
802.660.4988 *Primary aim to help small system operator provide an adequate supply of quality water to rural residents and to help the system meet SDWA requirements. NeRWA's free services include certified operator training and on-site assistance with sampling, maintenance, and operations.*

Rural Community Assistance Program (RCAP/RHI) 978.297.5300 or 800.488.1969
Provides Training and technical assistance to rural communities on improving their drinking water systems. These services are provided at no cost to the group or community involved.

National Drinking Water Clearing House
800.624.8301 *Services provided: Free newsletters: "On Tap" and "Water Sense"; free telephone consultations; computer bulletin board; referrals; products (educational, government publications etc.)*

UMASS Extension, Natural Resources and Environmental Conservation Program
413.545.2188 *Contact for watershed protection, public education materials, wastewater management, septic systems, capacity building and non-point source pollution.*

Watershed Associations 617.727.1614 *Contact for watershed resource issues, protection, water sampling, data collection, recreational and educational events. Contact River ways Program for listing at number above.*

Massachusetts Water Works Associations (MWWA) 978.692.0199 *Professional association for waterworks industry. Contact for operator training, educational materials, and newsletter.*

New England Water Works Association
508.478.6996 *Professional association for waterworks industry. Contact for training courses, cross connection prevention, public information and assistance.*

American Water Works Association 800.366.0107 or 800.426.4791 *A service for small water systems serving 1000 connections or less.*

Natural Resource Conservation Service
413.253.4350 *Contact for soil conservation assistance and maps.*

SANITARY SURVEY COMPLIANCE PLAN RESPONSE FORM for TABLE A & B

Within 45 days of receipt of this inspection report, you must complete and submit this response form if your system has **TABLE A -Violations and/or TABLE B-Deficiencies**. Attach a copy of each completed table listing the date that the corrective action was or will be taken by your system and all other applicable documentation. (310 CMR 22.04(12))

Please note that violations listed in TABLE A of the Compliance Plan are also a Notice of Noncompliance (NON) pursuant to M.G.L. c.21A, §16 and 310 C.M.R. 5.00 and may require the submission of quarterly written progress reports on the identified violations.

The following corrective actions listed in the Sanitary Survey Compliance Plan(s) TABLE A and/or B has been taken by the public water system. (Please check all that apply).

- ☐ My system has taken **ALL** of the corrective actions listed within the timeframes specified in the Sanitary Survey Compliance Plan(s).
- For each item, I have listed the completion date of the corrective action within each table.
 - I have attached copies of supporting documentation as required.
- ☐ My system has taken **SOME BUT NOT ALL** of the corrective actions listed within the timeframes specified in the Sanitary Survey Compliance Plan(s). My system **HAS NOT** complied with **ALL** of the requirements set forth in the Sanitary Survey Compliance Plan(s).
- For each item, I have listed the actual or anticipated completion date of the corrective action within each table.
 - I have attached copies of supporting documentation as required.
 - I have attached a revised corrective action schedule establishing timelines for my system to address outstanding items and I will submit a written progress report each quarter (every 3 months) until all items have been addressed.
- ☐ My system is **UNABLE** to comply with some or all of the corrective actions within the timeframes specified in the Sanitary Survey Compliance Plan(s). I understand that my system may be subject to further enforcement action.
- An explanation is attached.

I hereby acknowledge receipt of the inspection findings and compliance plan table(s) of the sanitary survey conducted by the Department of Environmental Protection's Drinking Water Program. I certify that under penalty of law I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best of my knowledge and belief.

Water Commissioner, Owner, Owner Representative or Other Responsible Party:

Signature: _____ Date: _____

Print Name: _____ Title: _____

Signature: _____ Date: _____

Print Name: _____ Title: _____

Signature: _____ Date: _____

Print Name: _____ Title: _____

Return this form, a copy of each Compliance Plan Table and all attachments to:

DEP-BRP Drinking Water Program
627 Main Street
Worcester, MA 01608

Please note that this Compliance Plan is also a Notice of Noncompliance (NON) pursuant to M.G.L. c.21A, §16 and 310 C.M.R. 5.00. Please review the items noted in the report and Compliance Plan.

Within 45 days of receipt of the NON and inspection report, you must fill-in the corrected date(s) and submit this form to the DEP and the attached SANITARY SURVEY COMPLIANCE PLAN RESPONSE FORM, including all applicable attachments. If the time required to complete the correction is greater than 3 months, submit quarterly progress reports and provide an anticipated completion date.

#	T/ F/ M	Regulation or Statute Citation	SANITARY SURVEY COMPLIANCE PLAN		Deadline for Taking Corrective Actions	Corrected Date by PWS
			TABLE A - VIOLATIONS			
			Corrective Actions			
1.	T	310 CMR 22.04(7) & Chapter 2 of the Guidelines	The Godfrey Brook Treatment Facility lacked continuous pH monitoring. Continuous pH monitoring equipment must be installed at the Godfrey Brook Treatment Facility. The monitoring equipment must be equipped with both high and low pH alarms and shutoff points. It is suggested that the pH monitoring equipment be connected to the SCADA system.		15-Apr-2005	

T=Technical, F=Financial, M=Managerial
MA Drinking Water Regulations 310 CMR 22.00

The DEP provide technical assistance to systems responding to corrective actions and recommendations to improve the protection of drinking water and public health. Please call your regional DEP office at 508.792.7650 for referral to use appropriate staff person or technical outreach provider.

The DEP has made note of several items that do not reflect good water system practice and, if left unresolved, could lead to problems that are more serious. Some of these items may be potential violations, and are summarized below. Due to the item's severity or importance the DEP has included a required course of action with a compliance date. The DEP looks forward to a timely completion of the actions identified in the table below.

Within 45 days of receipt of the NON and inspection report, you must fill-in the corrected date(s) and submit this form to the DEP and the attached SANITARY SURVEY COMPLIANCE PLAN RESPONSE FORM, including all applicable attachments. If the time required to complete the correction is greater than 3 months, submit quarterly progress reports and provide an anticipated completion date.

SANITARY SURVEY COMPLIANCE PLAN			Deadline for Taking Corrective Actions	Corrected Date by PW:
#	T/ F/ M	Regulation or Statute Citation		
TABLE B - DEFICIENCIES				
Corrective Actions				
1.	T	310 CMR 22.04	During a power outage Milford Water Company does not have an emergency backup power supply to operate the water system, nor is the system able to provide water storage equal to its maximum daily demand for up to 24 hours. MWC must provide the Department with a plan for obtaining either backup power or increasing the storage capacity of the system.	30-Apr-2005
2.		310 CMR 22.22	Hose bibs have not been installed on all outdoor faucets of PWS owned facilities to minimize contamination due to backflows. Hose bib vacuum breakers must be installed on all PWS owned thread taps.	30-Apr-2005
3.	T	310 CMR 22.04	All tank vents and overflow pipes are not up to code and/or properly screened. The Highland Street Tank needs a screen on the over flow.	30-Apr-2005
4.	T	310 CMR 22.19	Milford Water Company does not have an adequate leak detection program. The Department recommends that a full leak detection survey be conducted at minimum of every two years; identified leaks should be repaired as soon as possible. The amount of unaccounted for water for a well-run system should be below 10% of total water consumption, and should remain under 15% at all times. Systems with greater than 15% of unaccounted for water should conduct a full leak detection survey more frequently to minimize water loss due to leaks. MWC must provide the Department with a plan for meeting this requirement.	30-Apr-2005
5.	T	310 CMR 22.04	The master meter to Mendon is broken and must be repaired.	30-Apr-2005
6.	T	310 CMR 22.22	The system reports that it has established and maintained an active cross connection control program for residential users, as required, which includes an educational component. Please provide the Department with a copy of the public education material that the MWC delivers to its residential users.	30-Apr-2005
7.	M	310 CMR 22.04	The Departments records indicate that the MWC has not completed the compliance actions that are required by the Federal Administrative Order issued June 10, 2004. Please notify the Department the compliance actions have been completed.	15-Apr-2005
8.	M	310 CMR 22.21	The DEP does not have a record indicating that Milford Water Company has a local floor drain regulation. Catherine Sarafinas-Hamilton at the DEP Boston Office at 617-556-1070 for technical assistance in this process.	30-Apr-2005

The DEP will provide technical assistance to systems responding to corrective actions and recommendations to improve the protection of drinking water and public health. Please call your regional DEP office at 508.792.7650 for referral to the appropriate staff person or technical outreach provider.

SANITARY SURVEY COMPLIANCE PLAN				Deadline for Taking Corrective Actions	Corrected Date by PWS
#	T/ F/ M	Regulation or Statute Citation	Corrective Actions		
9.	M	310 CMR 22.21	The DEP does not have a record indicating that Milford Water Company has a wellhead protection plan. Catherine Sarafinas-Hamilton at the DEP Boston Office at 617-556-1070 for technical assistance in this process.	30-Apr-2005	
10.	T	310 CMR 22.04	Piping and chemical feed lines at the Godfrey Brook Pump Station are not color coded or labeled. All pipes and chemical feed line must be color coded and labeled in accordance with the Drinking Water Guidelines.	30-Apr-2005	
11.	T	310 CMR 22.04	Containment must be provided around the phosphate tank at the Dilla St. pump station. The containment area must be capable of holding 110% of the on site chemical storage and cannot contain a floor drain.	30-Apr-2005	
12.	T	310 CMR 22.04(7) & Chapter 2 of the Guidelines	Both The Godfrey Brook and Dilla St. Treatment Facilities lacked both high and low chlorine alarms and shutoff points. It is suggested that the chlorine alarm equipment be connected to the SCADA system.	30-Apr-2005	
13.	T	310 CMR 22.04(7) & Chapter 2 of the Guidelines	The chlorination room at the Dilla Street Pump station lacked adequate ventilation. The ventilation fan intake must be lowered to floor level.	30-Apr-2005	
14.	M	310 CMR 22.04	The Board of Directors should develop a long-term response to demand strategy.	30-Apr-2005	
15.	T	310 CMR 22.20A	MPA sampling must be conducted on the raw water (untreated source water) of each of the following sources during April 1 st - May 30 th (Spring). List Source ID#: 2185000-01G, 2185000-02G	15-June-2005	
16.	T	310 CMR 22.20A	MPA sampling must be conducted on the raw water (untreated source water) of each of the following sources during August 15 th - October 15 th (Fall). List Source ID#: 2185000-01G, 2185000-02G	15-Nov-2005	

T=Technical, F=Financial, M=Managerial

The DEP has made note of items with a recommended course of action, summarized in Table C. It is strongly encouraged to follow the recommended actions in order to improve ability to provide a safe supply of drinking water. Failure to do so could eventually lead to violations of the regulations. The DEP looks forward to a timely completion of the recommended actions identified in the Findings and in the Sanitary Survey Compliance Plan Table C.

SANITARY SURVEY COMPLIANCE PLAN		
TABLE C - RECOMMENDATIONS		
#	T/ F/ M	Regulation or Statute Citation
1.	M	310 CMR 22.04
2.	M	310 CMR 22.04
3.	M	310 CMR 22.04

It is suggested that Management consider water conservation pricing.

It is recommended that the Company adopt a written training policy.

It is recommended that the Company establish a method to track training expenses.

The DEP will provide technical assistance to systems responding to corrective actions and recommendations to improve the protection of drinking water and public health. Please call your regional DEP office at 508.792.7650 for referral to the appropriate staff person or technical outreach provider.

SANITARY SURVEY COMPLIANCE PLAN
TABLE C - RECOMMENDATIONS

#	T/ F/ M	Regulation or Statute Citation	Recommended Actions
4.	M	310 CMR 22.04	It is suggested that better use be made of the Consumer Confidence Report.
5.	M	310 CMR 22.04	It is suggested that Management consider a more aggressive water conservation policy.
6.	M	310 CMR 22.04	Management responsiveness should be reviewed.
7.	T	310 CMR 22.04	The Department recommends that a transparent safety barrier be installed around the sodium hydroxide feed system.
8.	T	310 CMR 22.04	The Department recommends that a Valve exercise/maintenance program be performed annually.
9.	M	310 CMR 22.04	Adoption of a written Antenna Policy is recommended.
10.	M	310 CMR 22.04	It is recommended that a written Unaccounted for Water Policy be adopted.
11.	M	310 CMR 22.04	It is suggested that the expenditure approval and check signing policy be reviewed.
12.	M	310 CMR 22.04	Consideration should be given to adopting an increasing block rate structure.
13.	M	310 CMR 22.04	It is suggested that Management consider water conservation pricing.
14.	M	310 CMR 22.04	The turn on/turn off fee schedule should be reviewed and updated as needed.
15.	M	310 CMR 22.04	The Connection Fee should be reviewed and updated.
16.	M	310 CMR 22.04	Consideration should be given to providing information on fees and other charges on the web site.
17.	M	310 CMR 22.04	Consideration should be given to determining if the current level of capital investment is adequate.
18.	T	310CMR 22.21	Milford Water Company is not in conformance with 310 CMR 22.21(1)(a)5, which requires Zone I activities be limited to those directly related to the provision of public water. Prohibited activities were identified within the Zone I of its well(s) as listed in the previous above.
			Pursuant to 310 CMR 22.04(1) and 22.21(1)(a) you must notify the DEP if you plan to modify or expand your system or to replace any wells. At the time of such notification of a proposed modification or expansion, DEP may require you to comply with the Zone I ownership and activities requirements listed above.
19.	T	310 CMR 22.04	The Department recommends that continuous turbidity be install on both the influent and effluent lines of the slow sand filters.
20.	M	310 CMR 22.04	It is recommended that Management improve communications with operational staff in an effort to improve compliance reporting to DEP.

T=Technical, F=Financial, M=Managerial

<http://www.state.ma.us/dep/hwp/dws/files/310cmr22.pdf>

VMA Regulations 310 CMR 36.00

<http://www.state.ma.us/dep/hwp/dws/files/31036.pdf>

Guidelines & Policies for Public Water Systems

<http://www.state.ma.us/dep/hwp/dws/files/guides/guides.htm>

Applications & Forms

<http://www.state.ma.us/dep/hwp/dws/forms.htm>

The DEP will provide technical assistance to systems responding to corrective actions and recommendations to improve the protection of drinking water and public health. Please call your regional DEP office at 508.792.7650 for referral to the appropriate staff person or technical outreach provider.

DETERMINING TURN-ON/TURN-OFF FEES USING ACTUAL COSTS

Draft Guidance

A water system pays Joe \$15/hour salary. It takes Joe about an hour to shut off the water at the curb cock, so the water system, based on the superintendent's recommendation, set the turn-on/turn-off fee at \$20. Is the fee correct based on actual costs?

This article will go through an example of calculating the fee. You can plug in numbers from your system to come up with your system's cost, and naturally the cost will have to be updated every few years.

Employees for this system work 40 hours a week, so the annual salary, not counting overtime, is (40 hours per week X 52 weeks in a year X \$15/hour) \$31,200. There are additional costs to add to this amount. Liability Insurance is often based on the number of people employed or their salaries. Workmen's Compensation Insurance (probably 8% to 15% of salary depending on classification) must be paid, as well as Unemployment Compensation (often 2 or 3%). If the person works for a privately owned water system, the system must pay its share of social security in addition to the employee's share. There is the overhead cost of the staff that keeps track of the time slips and handles payroll, the cost of heat and electricity, and maybe the employer's share of health plan costs. You can look up these costs for your employees, but for this example let's assume the cost is 40%, which amounts to $(\$31,200 \times 0.40)$ \$12,480. So the employee actually costs the system $(\$31,200 + \$12,480)$ \$43,680.

However, not all of the time is productive time. For this example assume the employee has 2 weeks of vacation, 2 weeks of sick time, 11 holidays, 9 days of training, and a half day a week (26 days a year) in department meetings. This amounts to 66 days a year or 528 hours of unproductive time. The work year is (52 weeks X 40 hours per week) 2,080 hours. Subtract from this the unproductive time (2,080 minus 528) leaves 1,552 productive working hours in the year.

So now the cost per productive hour is $(\$43,680 \text{ annual person cost divided by } 1,552 \text{ productive hours in the work year})$ \$28.14. In addition, it turns out that usually two people go out, especially when it is a turn-off for nonpayment. The superintendent actually timed some trips and found that when travel time and problems (finding the riser (paved over, buried), cleaning the riser, talking to the customer) it took about 1.5 hours on average and about 10 miles on the pickup truck (\$2.50 at \$0.25/mile). After they got back to the shop it took about 15 minutes to do the paperwork to record the shut off and make sure the information got to the billing clerk.

The final cost for 3.25 hours (2 staff for 1.5 hours each and 0.25 hours of paperwork) is $(\$28.14/\text{hour} \times 3.25 \text{ hours})$ \$91.45. Add \$2.50 for the pickup truck and it comes to \$93.95.

Naturally the cost for your system will be different, but this gives you a way to get a better handle on the true cost, which is much higher than \$20.

DETERMINING THE CONNECTION FEE

Draft Guidance

A water system is considering increasing its connection fee. How should it be done? This article gives one method.

What is a connection fee? A connection fee is required of all new customers desiring water service, or existing water users requesting an increase in water service. It is a one time charge based on demand. It is based on capacity needed by the new customer relative to the capacity of the water system.

Is there more than one way to calculate the connection fee? Several methods can be used. One method looks at what the next expansion of the system would cost and determines the cost per unit of water based on that cost and charges the new customer their share; the customer "buys into" the future capacity. A second method has customer "buy into" the existing surplus capacity of the system. In this example the customer "buys into" the existing capacity of the system.

How is the connection fee calculated? There are several steps. In this example it is assumed that the system uses equivalent family units for its connection fee basis. It also uses equivalent family units when charging betterments for the installation of new pipe, so the two systems are compatible.

1. Determine how much water is produced by the water system per year. In this example the system's Annual Statistical Report shows 73 million gallons produced for the year, or 200,000 gallons per average day.
2. Determine the value of the infrastructure. The accountant has done the GASB-34 determination and reports the depreciated value of the infrastructure for this year at \$2.3 million.
3. The water system is currently constructing a storage tank costing \$1.5 million and plans on installing an upgraded 16" main costing \$2 million. The current construction can be counted as part of the infrastructure base, but the future project should not be added until it is installed. When the new main is installed the connection fee would be recalculated and a new connection fee established. A developer is going to install a 100 unit condo, and has agreed to install the water main extension and turn it over to the system. The additional family units and value of the water main should not be considered until they are actually installed then the connection fee would be recalculated.
4. Determine water use of the average family. An industry rule of thumb is that the average family uses 90,000 gallons per year or 247 gallons per day. DEP water withdrawal permits allow 80 gallons per person per day in non-stressed watersheds and 65 gallons per person per day in stressed watersheds. The average family is about 2.5 people so that translates to 200 gallons per family per day in a non stressed water shed and 163 gallons per day per family in a stressed water shed. The design criteria for Title V suggest 330 gallons per family day. This system has chosen 182 gallons per average family day as its equivalent family unit amount.
5. Number of family units currently on the system is the average amount pumped per day divided by the equivalent family unit, or (200,000 gallons per day divided by 182 gallons per family unit =) 1,099 equivalent family units.
6. The value of the equivalent family unit is the depreciated value of the water system divided by the number of family units. In this case we will add the value of the new storage tank that is under construction of \$1.5 million to the system value of \$2.3 million to get \$3.8 million. Dividing \$3.8 million by 1,099 equivalent family units gives \$3,457 as the value per family unit. The Water Commissioners decided on a connection fee of \$3,400 per family unit.

Each system is different, but if you plug your numbers into this format you can get a connection fee that has a factual basis. DEP has found that many water systems have connection fees that do not recover the costs the system has invested in providing the capacity.

Public Water System Staffing Plan

310 CMR 22.11B

A. PWS Information

PWS Name	PWS ID #
City/Town	Facility Distribution Grade
Facility Name	Facility Treatment Grade
Facility Location	Date

B. Operator Information - List all facility operators. Attach additional sheets as necessary.

A. Primary Distribution Operator	Position/Title	License # and Grade	OIT <input type="checkbox"/> Full <input type="checkbox"/>
B. Secondary Distribution Operator	Position/Title	License # and Grade	OIT <input type="checkbox"/> Full <input type="checkbox"/>
C. Additional Distribution Operator	Position/Title	License # and Grade	OIT <input type="checkbox"/> Full <input type="checkbox"/>
D. Primary Treatment Operator	Position/Title	License # and Grade	OIT <input type="checkbox"/> Full <input type="checkbox"/>
E. Secondary Treatment Operator	Position/Title	License # and Grade	OIT <input type="checkbox"/> Full <input type="checkbox"/>
F. Additional Treatment Operator	Position/Title	License # and Grade	OIT <input type="checkbox"/> Full <input type="checkbox"/>

C. Primary Operator Contact Information

Primary Operator Name	Work Phone #	Home Phone# and/or Cell Phone#
Mailing Address	City, State, Zip	E-mail Address

D. Coverage / Staffing Information

What are the hours of operation of this treatment facility? hours/day _____ days/week _____ weeks/year _____

Does the treatment facility utilize an automated system such as SCADA to reduce staffing requirements per 310 CMR 22.11B(5)? Yes ☐ No ☐

Note if there are on-call or automated operations describe the notification procedure and response time in *Comments*.

Is this a satellite facility that is operated remotely? Yes ☐ No ☐

Use the codes (D, E, or F) from Section B to fill in the days when each operator is responsible for the treatment facility.

Treatment	Shift Hours	Monday - Friday	Saturday – Sunday	Holiday
Shift 1				
Shift 2				
Shift 3				

E. Comments

DEP Approved by: _____ Name _____ Date _____

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rev. 2/2003

Submit for approval to: DEP-BRP Drinking Water Program, 627 Main Street, Worcester, MA 01608